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THE UNIVERSITY OF ALBERTA

THE DEVELOPMENT OF STUDENTS' NATURAL LEARNING STYLE THROUGH DEVELOPMENTAL DRAMA

By

MARY FRANCES FITZGERALD

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled THE DEVELOPMENT OF STUDENTS NATURAL LEARNING STYLE THROUGH DEVELOPMENTAL DRAMA, submitted by MARY FRANCES FITZGERALD in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION.

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(Supervisor)

J. Jagodzinski

Joyce Edwards

Date: July 21, 1989

DEDICATION

To my son, Timothy Fitzgerald Brown, who has grown up with my graduate work, during his first three years of life.

ABSTRACT

This case study of 24 grade eight drama students focused on the question, how does developmental drama allow students to explore their natural learning style? This six month study, conducted by the drama teacher as researcher, also used data collected from knowledgeable observers, as connoisseurs of education.

The concept of developmental drama was combined with the learning style theories of Rita and Kenneth Dunn and of Kathleen Butler. The Dunn's Learning Style Inventory, (1987) examined five stimuli - environmental, emotional, sociological, physical and psychological - which shaped a student's individual learning style profile. Butler's Learning Style Communicator, a teacher observation instrument, assessed how students channeled information. According to Butler students are categorized as, concrete random, concrete sequential, abstract random and abstract sequential. These learning style concepts were observed during drama classes which followed the philosophies of the Junior High Drama Curriculum Guide, piloted by the Alberta Department of Education, 1988.

Upon analysis of the researcher's observations of the students actions and comments, data collected from the inventories, and data received from the knowledgeable observers, student learning style profiles were created and themes emerged. Environmentally, in the drama classroom, the use of space, lighting and sound affected the students' learning style. The sociological elements through peer interaction in drama, were combined with the emotional elements of motivation, persistence and responsibility. Psychologically, because of the students' stages in the development of abstract thoughts, students basically had no preference for hemisphericity. The students were just beginning to recognize themselves as learners. Reflections on the impact of the study, and questions for further research were described.

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CHAPTER ONE

RESEARCH DESIGN

INTRODUCTION

During my twelve years of teaching, I have had the the opportunity to teach a variety of drama students at the secondary high school level. I have taught the educably handicapped students, high school students, the talented and gifted students, junior high students and the adult student. In my early teaching years, I was personally trying to come to terms with the dynamics involved in the nature of drama. As I taught the different levels of students, I found that I was teaching in the same style and often teaching the same content while providing opportunity for the same activities to be applied to the various student skill levels. Drama material upon which I constantly relied was used to help the student acquire a knowledge of self and of others through participation in dramatic activities. Although my students and I would study dramatic form, disciplines, techniques and history, I would make the material relevant to the students through student centered activity. I concluded, after eleven years of teaching drama, that my personal drama philosophy aligned with that of Dorothy Heathcote, who states that creative dramatics is a "technique ordinary people regularly employ as a way of coping with a new or unsettling experience." (Wagner, 1981, 37)

Understanding my philosophy, I began to observe how the different types of students adapted to the work they were assigned. My interest then centered not on the dynamics of dramatic content but on the dynamics of the drama students. I began to study and observe the thinking and learning patterns of my drama students. After conducting an empirical study in Right Brain/Left Brain processing (Fitzgerald, 1986) and a qualitative study in Modality and the Drama

Student (Fitzgerald, 1987) I found that indeed, students in my drama classes appeared to think and interpret information in ways or styles different from the way they did for other subjects, such as math and the sciences. Drama students appeared to illustrate an hemispherical right brain orientation for learning style. I, then, began to explore learning styles, which are, according to Keefe, "the characteristic, cognitive, affective and physiological behaviors that serve as relatively stable indicators of how individuals perceive, interact with, and respond to their environment." (Keefe, 1979, 4)

I began to draw similarities between the nature of drama and the style in which students learned. If the similarities were obvious to me, why not study the combined aspects of drama and learning styles in a drama classroom? In doing so, as an educator, I hoped to understand and uncover the underlying meaning of the relationship between learning styles and drama. I wanted to explore the nature of drama and how it offered many natural opportunities for students to experience aspects of learning styles. Natural occurrences would be identified through observation of the students when they would be working easily, efficiently and effectively. Because I would be working with junior high drama students, I chose to call drama, developmental drama. Developmental drama encourages the development of the whole person-emotionally, physically, intellectually, imaginatively, aesthetically, and socially. (Alberta Drama Curriculum, Pilot, 1988)

PURPOSE OF THE STUDY

The purpose of the study is to explore, describe and explain if:

1. drama offers an inherent opportunity for the student to explore his or her learning styles.
2. it is possible to fuse the concepts of developmental drama and learning styles.
3. drama students learn in a certain fashion or learning style.

I wanted to integrate the two paradigms of learning styles and developmental drama. With this integration, I could observe the students' actions and interactions of learning style as applied in a developmental drama learning environment.

DESIGN OF THE RESEARCH

The content of this study suggested to me that the design method would be a descriptive case study employing methodological triangulation incorporating a variety of field techniques.

Guba and Lincoln propose four purposes for use of the case study method which I have adapted for this study;

1. to chronicle - to develop a register of facts or to document the facts in the order that they have happened.
2. to render - to depict, characterize or construct meanings.
3. to teach or to provide with knowledge
4. to test - to prove, try or to examine

(Guba and Lincoln, 1985)

The four purposes of the case study method fit with my idea of research. I could chronicle the students' activities through observing their daily experiences in a log book. I would render and construct meanings by trying to understand how students uncovered their learning styles through drama. The research would teach me as a teacher to observe and to search for deeper meanings as to what happens in the drama classroom. Finally, the case study method would allow me to fuse the concepts of the Dunn and Dunn Learning Style Model (1987) and Butler's Style Differentiated Model and Learning Style Communicator (1984) with drama.

The reporting form of a case study also influenced my choice of the case study method. The case study provides thick description. Thick description, a term first coined by Geertz, (1975) is an "extensive description and interpretive effort at explaining the complexity of social discourse." (Duignan, 1981, 285) The case study is grounded in the above theories and provides an experiential perspective; it is holistic and life-like and presents a picture credible to the actual participants in a setting with natural language; it simplifies the data so as best to serve the purposes of the researcher; it illuminates meaning; and the case study allows for use of tacit knowledge. (Guba and Lincoln, 1981, 376)

The essential procedure of this case study was to take account of the pertinent aspects of one thing or situation as a bound unit of study, in this case, one grade eight option drama class. (Good, Scates, 1954). It was important to me that the students as individuals and as a class would experience the process of involvement in drama. It was equally important then, to allow the students as individuals and as a class, the teacher/researcher and the consultant/observers to discover what we all had learned from the experiences. In this manner we were working in the qualitative paradigm which according to Cook and Reichardt "perceives social life as the shared creativity of individuals. It is this sharedness which produces a reality perceived to be objective, extant, and knowable to all participants in social interaction." (Fetterman, 1979, 35) My drama program, is based on a shared creativity between the students and myself, and the students' work is based on shared creativity between the students and between the students and me.

The research involved two models of Learning Styles Categorization. The Dunn and Dunn Learning Style Inventory (1987) focused on five elements of learning style: environmental, emotional, sociological, physical and psychological elements. The Butler qualitative Learning Style Communicator (1984) focused on four styles of learning: the abstract random, concrete random, concrete sequential and abstract sequential learning styles. The application of these two models was for identification purposes in understanding student learning styles. Within Butler's Learning Style Communicator, was the Model of Style Differentiated Instruction (SDI). This also worked on four levels of instructional approaches which combined the intentional match or mismatch of learning styles: the single approach, the variety approach, the multiple approach and the dynamic approach.

I used the Dunn and Dunn Inventory because of its comprehensive overview of many elements I find integral to developmental drama. I chose the Butler Style Learning Style Model because it recognizes two facts: that students go through stages of style development, and that there are certain steps in stretching a student's capacity to learn through channels that are not natural to themselves. I used these two models in conjunction with a version of the Junior High Drama Curriculum guide, piloted by Alberta Education. (Draft, 1988) Further references to this Curriculum Guide in this study, will be made to the Drama Curriculum.

I observed and collected data from January, 1987, through June of 1987, in one class of grade eight drama option students. Alberta Education states that the

Junior High Drama program presumes 75 hours of study at each level. It goes on to describe the parameters of an option as:

> "Because junior high drama courses do not demand prerequisites and in some schools drama is not available to all grades, it is difficult to set required content. The levels, beginning, intermediate and advanced correspond to the first, second and third years of instruction of the program...typically grades, seven, eight and nine. All orientation skills must be taught or reviewed at all three levels. Technical Theatre requires that one component be taught at each level." (15)

The disciplines, including orientation at each level are: movement, speech, improvisation/acting, theatre studies and technical studies.

STATUS OF THE RESEARCHER

In this study I chose to act as both the researcher and the teacher. McIntosh (1984) simply defines teacher/researcher as "public or private school teachers who instigate research in their own classrooms or schools." I chose to be the teacher of the students because it was my working knowledge and application of learning styles and teaching styles that would open the avenues for the student explorations of personal learning styles in the drama classroom, thus, I would be able to recognize the similarities of objects and issues in and out of context and sense the natural covariations of happenings. (Stake, 1978) In the role of teacher, I could also direct the classroom activities and channel certain experiences that would lead to exploration of learning styles in drama. As teacher, I had already gained entry into the world of the participants. Even before the researcħ began, the students were used to sharing ideas with me and working from those ideas, as I was with them. Also, as researcher, I was entering into a domain where familiarity with subject knowledge of developmental drama and of learning styles was based not only on theoretical conclusions but also on insight, intuition, ambience and years of experience.

Werner and Rothe (1978) suggest that the investigator must become part of that particular setting in order to interpret it in terms of the actor's own situational definitions. He must interpret people's actions, (or their report about their actions) according to the way they understand their everyday life. The interpretation of the participant's actions were illuminated by my knowledge of the students as people with life histories and by my knowledge of dramatic action and learning styles. In order to handle the problems of bias and overfamiliarity (Glaser and Strauss, 1967), I relied on the help of consultants or knowledgeable observers to view, from their frame of reference, the activities in my drama classroom. In my research these knowledgeable observers had a two-fold purpose; they were both my lens and my data. They allowed me to see what I could not, and their written and recorded information became data integral to the study. Indeed, it was Elliot Eisner who said, that "those engaged in educational research should have an intimate acquaintance with life in classrooms", (1984, 450) as I and my knowledgeable observers did.

METHODS OF INQUIRY

Through triangulation, broadly defined by Denzin (1978) as the "combination of methodologies in the study of the same phenomena", I collected, categorized and interpreted the data. My purpose in using Denzin's holistic approach to the descriptive inquiry was to "develop theories which explain the feeling, emotions, definitions, and actual behaviors of those observed." (1978, p.291) According to Mathison, "triangulation is a technique through which researchers can construct meaningful propositions about the social world", (1988,

15) with the social world being that of the drama classroom. Because developmental drama is a qualitative and a subjective experience, (Heathcote, Bolton) its dynamics are hard to measure. Also, learning styles are observed natural behaviors (Keefe, 1982), qualitatively measurable and subjective (Gregorc, 1979 and Butler, 1984). Therefore, using the field techniques, statistics and consultant/observers, Denzin's frame of triangulation was appropriate for this study. "We attempt to make sense of what we find and that often requires embedding the empirical data at hand with a holistic understanding of the specific situation and general background knowledge about this class of social phenomena." (Mathison, 1988, 17)

THE TWO TYPES OF RESEARCH IN THIS STUDY- QUALITATIVE AND QUANTITATIVE

In this research I used two methods of gathering data. The quantitative research involved the administration of the Dunn and Dunn Learning Style Inventory during and at the end of the study. The Butler Classroom Observation Instrument was used to enhance, expand and interpret the results of the Dunn and Dunn Inventory. Although this quantitative data was used, it was not the primary focus in the study, in fact it was used as another means of triangulating data to ensure truthfulness for the qualitative data. The qualitative data was used to enrich and shape the study.

I will examine in detail how the two styles of research were used. With the qualitative research, I will define the field techniques, data collection, observation and interview procedures used. With the quantitative research, I will describe the Inventory.

QUALITATIVE RESEARCH

Field Techniques

In order to understand how developmental drama allowed drama students to explore their learning styles I used the following field techniques of inquiry:

1. observation,
2. interviews,
3. analysis of documents and archival data,
4. questionnaires to the students and to the consultants.

Data was gathered through several methods:

1. media collections - full sound tape recordings of all the drama sessions, special video taped class sessions and photographs,
2. log book - a daily record of the activities which occurred in the classroom,
3. journal - the researcher's observations , note taking and personal reflections,
4. interviews - pre-interviews and post interview checks; formal, and informal informant interviews and consultant interviews, with accompanying interview sheets,
5. collection of students' written work, reflections, critiques, journal entries, drawings, assignments and checklists.

These multiple methods of field work approaches and data collection were used to enrich the understanding and allow for deeper dimensions of research to emerge. (Jick, 1983)

Observation

Guba and Lincoln summarize four methodological arguments for using observation as a valid tool in data collection:

> "Observation (particularly participant observation) maximizes the inquirer's ability to grasp motives, beliefs, concerns, interests, unconscious behaviors, customs, and the like; observation (particularly participant observation) allows the inquirer to see the world as his subjects see it, to live in their time frames,

> to capture the phenomenon in and on its own terms, and to grasp the culture in its own natural, ongoing environment; observation (particularly participant observation) provides the inquirer with access to the emotional reactions of the group introspectively - that is, in a real sense it permits the observer to use himself as a data source; and observation (particularly participant observation) allows the observer to build on tacit knowledge, both his own and that of members of the group." (1981, 193)

In this study there were two levels of formal observation, that of me as the teacher/researcher, and that of the knowledgeable observers or consultants. Also, at appropriate times, students were asked to observe one another and to write their descriptions of what they observed.

The role of participant-observer in education is "a methodological avenue into the social knowledge and processes by which participants negotiate meaning". (Hatch, 1985, 13) Two options of the varied styles of participant-observer were used in this study. I, as teacher/researcher, was an active participant totally engaged with the group and I was clearly defined as a group member. (Rist, 1982) Although I was an active group member, there was no danger of my becoming as one of my students, because I was able to maintain distance through the teacher-student relationship. My knowledgeable observers or consultants were detached observers, who were introduced to the students as "people who are helping me with my research". The consultants would sit on a chair in a corner of the room and not interact with the students until the class was over.

As teacher/researcher I spent six months of formal observation with this grade eight drama class of 24 students, from January through June of 1988. Having already gained entry, by teaching and developing a relationship with the drama class, I was able to step into Systematic Observation early in the study. Systematic observation, as defined by Spradley (1980) has three levels:

descriptive observation, focused observation and selective observation. The descriptive observations represent a shotgun approach, or the observation of everything. To aid me in this descriptive observation, I had created observation sheets using the relevant information of learning styles used in this study (appendix B) and which focused the observations of my knowledgeable observers. The observation sheets became a tool and information focus for follow-up interviews. This in turn became data for the research. The selective observation focuses on the attributes of different types of activities, thus sharpening the observation of the descriptive and focused styles. It was during the selective observation and interviews with my knowledgeable observers that deeper insights were identified and synthesized, and from which themes began to emerge.

The Interview

> "In the broadest sense, to conduct a good interview is to hold an interesting conversation. Like an engaging conversation, there is participation by all involved. Ideas and perceptions are exchanged, information is shared, and participants come to know more about each other in the process." (Rist, 1982, 443)

I used the interview for three purposes as defined by Kerlinger:

> "One, it can be used as an exploratory device to help identify variable and relations, to suggest hypotheses, and to guide other phases of the research. Two , it can be used as the main instruments of the research.. Three, the interview can be used to supplement other methods used in a research study: to follow up unexpected results, to validate other methods, and to go deeper into the motivations of respondents and their reasons for responding as they do." (1967, 468)

As an exploratory device, I held formal and informal interviews with my students. All of the formal interviews were tape recorded and transcribed and post checked for understanding. Interviews were with individual students, small groups of students, and with the whole class. Group interviews with both large and small groups were of value because they: approximated real life for the students through social meanings and verifications; allowed the groups members to discover new meanings and took us to deeper understandings; and allowed for learning within the group. (Perisco, 1986) Guba and Lincoln (1981) suggest that the value of the interview is that the questions can be tailormade to fit the respondent's knowledge, degree of involvement, and status. The interview and the style of questioning were both important tools for me which helped me draw information from my drama students.

As a main instrument of research the interview was integral to my study. The interview was used as a means of gaining knowledge and verification from my students. Pre-interviews were held with my consultants in order to explain the observation sheets and my frame of reference. The observation sheets were extremely important to the interview process, because the sheets 'focused' the direction of the interview. The observation sheets guided the discussions to allow for open-ended questions which raised the issues concerned in this research, but did not suggest or structure the respondents' reply. The respondents were allowed to answer in their own terms and to respond from their own frame of reference. (Guba and Lincoln,1981, 177) With my consultants the interview was again a verification of their observations and my understanding of their interpretations. Post interviews were held, both formally and informally, to confirm data and understanding. Also, because each observer/consultant had his or her own frame of reference, the responses allowed for different insights or dimensions upon the same questions. The post interview was also enlightening, because the consultants often had time to reflect upon what they had observed, and at this point, valuable information was often exchanged. Without the interview instrument I would not have felt comfortable with the reliability and objectivity checks. For me, the interview process was a great tool for clarification, redirection, amplification, critical awareness, synthesis and summarization.

As a supplement to other methods the interview was used for validation which allowed for convergence in the triangulation .(Jick, 1983) Because all of the interviews were taped, they were used continually in the analyzing of the data and the framing of the themes. The interview was also a channel which allowed for deeper probing of thoughts and reflections from my students and also allowed me to observe the intensity of reactions and feelings from my students.

QUANTITATIVE DATA

The Dunn and Dunn Learning Style Inventory (1987) for students in grades 3 through 12, is a self report, 104 item questionnaire, based on a five point Likert Scale from Strongly Disagree to Strongly Agree.

The Dunn and Dunn Learning Style Inventory was administered to the subject group twice. In the first instance, in early February, 1988, students were moved from the informal drama room to a regular formal classroom with rows of desks. As a researcher, I felt that a formal classroom environment would lend the atmosphere for serious self reflective student thoughts because that was what the students expected for "serious thinking". The students were allowed to sit wherever they chose in the formal classroom. I read aloud each question of the self report inventory, however, students were allowed to move ahead at their own rate. Intermittent questions were answered for clarification during the reading of the questions. The sheets were gathered and forwarded to the Price Systems for analysis.

In the second instance, this inventory was administered in the drama room in June, 1988. There were no desks in the room. I chose the drama classroom over the regular classroom in order to observe environmental effects while the students were completing the Inventory. The lighting in one half of the open area was lit by the regular few spotlights and the stage work lights were on full. A few rostrum boxes were available, as were a few straight back wooden chairs and one triangular table. Students were allowed to work in any physical position or posture in which they felt comfortable. Students were also allowed to work in the lighted area they chose. For this administration, I did not read the questions to the whole class, but to those who wanted me to read the questions aloud. I moved around the class to answer various individual questions. The data was collected and forwarded to Price systems for analysis.

The purpose for this second inventory was as follows:

1. to help me identify and verify the learning styles of the students according to Dunn and Dunn,
2. to help me identify the students' levels in stages of style development and to combine those with the Butler Style Differentiated Instruction Model,
3. to check if there were any changes in learning style stimuli within the individual students between the beginning and the end of the research period,
4. to check if, as a group, there were any changes in group learning styles.
5. to observe the differences in environments while the students were being tested.

Although this Learning Style Inventory was used as a tool to observe change, it was only part of the research. It was used to enlighten me, as teacher and as researcher, about students' action and reaction to activities within the drama class situation.

The following table will help interpret the Inventory Data used in Chapter Five.

TABLE I - 1

Interpreting the scores of the Dunn and Dunn Learning Style Inventory

SUBSCALE		LESS THAN 40	GREATER THAN 60
1	noise preference	quiet	noisy
2	light preference	dark	bright
3	temperature	cool	warm
4	design	informal	formal
5	motivation	unmotivated	motivated
6	persistence	not persistent	persistent
7	responsible	not responsible	responsible
8	structure	short objective	highly structured
9	learning with	alone	peers
10	authority	not present	present
11.	learning	avoid change	in several ways
12	auditory preferences	low	high
13	visual preferences	low	high
14	tactile preferences	low	high
15	kinesthetic preferences	low	high
16	food intake	low	high
17	evening/morning learning.	evening	morning
18	late morn. preference	low	high
19	afternoon preference	low	high
20	mobility	low	high
21	parent-figure motivated	low	high
22	teacher-motivated	low	high

Limitations of the Study

1. Inherent in this study were the personal history, the assumptions and the attitudes of all the people involved. The energy of the working level depended upon the interdependent relationship of the students with each other and of the students with the teacher. Therefore, generalizability is only possible within this group for the given time of the study; however, that is not to say that other students or educational professionals could not learn from the situation.
2. Students were asked to respond to the Dunn and Dunn Learning Style Inventory, which is one of many learning style models currently used in education.
3. Students were qualitatively assessed by me, according to the Butler Learning Style Communicator, which is also one of many learning style models currently used in education.

Conclusion

The purpose of this study was to observe how a developmental drama program could allow drama students to explore their personal learning styles. While observing the students in drama classes, I could consider if it was possible to fuse the concepts of developmental drama and learning styles. In turn, this would give me an opportunity to observe if drama students used a dominant learning style.

The Dunn and Dunn Learning Style Inventory and the Butler Style Differentiated Model of Instruction and Learning Style Communicator were used in combination with the Drama Curriculum. At the time of this research the Alberta Education Curriculum Guide was in the process of being piloted by teachers within the Edmonton Public School System. I found the document useful because of its descriptions of drama disciplines and student skills. Also, the document provided clues as to School Board expectations of adolescent development in the areas of cognitive, physical and affective domains. Field techniques used in this triangulated case study were, observation, interviews, analysis of documents and archival information and the use of questionnaires to students and consultant observers. In the following chapter the methodology used in the case study will be discussed.

CHAPTER TWO

METHODOLOGY

In this chapter the following three processes are described; choosing the study group, conducting the field work and the method of data analysis.

CHOOSING THE STUDY GROUP

In September of 1987 I was placed in a new teaching position in a junior high setting. Prior to that, I had been teaching for five years in a senior high drama setting. I thought it was an opportune time, not being familiar with the students, to engage in research applying learning styles. I also thought, because I was new to the environment, I could be somewhat objective in my analysis of the drama/learning styles research situation. In October I chose a grade seven class with which I thought I would be able to work.

By the time I initiated the project with the students, discussed the possibilities, received the necessary approval from the University, the School Board, the School and the parents of the students, many things had changed in the nature of that particular grade seven drama classroom. Simply, as teacher, I could not find a 'way in'. I was not comfortable with some of the students. I had learned that there was an art to teaching in junior high that was different from that required in senior high school. Some students could not accept my form of discipline. My discipline was based on the philosophy of Art Coombs: "Discipline is a consequence of fundamental beliefs about self and others, about human rights and responsibilities and about cooperative efforts and willingness to carry one's full share in an interacting world." (Butler, 1984, 69) In my grade seven drama class I felt as though I was teaching student discipline and not drama. Therefore, I abandoned the idea of conducting my research with that particular group. From that situation I learned a valuable lesson. I had considered myself to be a competent drama teacher, especially competent because of my knowledge in learning styles. I realized that part of my uncomfortable feeling was the change of personal teaching style I had to go through in order to teach the young adolescent. If I was not comfortable with my teaching style, how could I possibly use learning styles within my classroom. Butler is firm on this philosophy, in fact her first basic assumption of five assumptions on learning and teaching styles is, "As a teacher, I must understand myself and my own goals before I can understand or accept others." (1984, ix) I had to learn and understand my goals and teaching style in this new junior high school setting.

By December I had established myself as the drama teacher. The students were understanding my expectations and teaching styles. In the month of December the school was working on the theme of the Olympics. Prior to Christmas holidays, 1987, most of the drama classes had shared their Olympic drama theme work with invited audiences from the school. This was a theme which pulled the drama students together as a collective body. With one particular grade eight group I was able to work, present my expectations and see clear and positive results. As a class we worked well together. We were successful, personally and dramatically, in our group scripted improvisation, The Olympics, which was taken to performance. The class was happy to work with me and I was excited to work with them. Prior to Christmas I told this group of students about the research I was going to do and I asked them if they would allow me to use them as my research group. Verbally, they willingly made a commitment to me. From that point, we proceeded into the research.

The important point resulting from this experience with the pilot study is that I knew I did not want, for the purposes of this study, to research learning styles in a time of difficulty for students who could not cope in a drama setting. I wanted to understand how developmental drama allowed students to explore their personal learning styles. In this research situation, I felt learning style methods were not to be enforced, but unfolded and discovered. However, it should be understood that a purpose of implementing learning styles is as a process and an approach which guides the student who is having difficulties. I also felt I needed time to become more comfortable with my teaching style in junior high. With my group of grade eight students, I felt I could proceed in the style appropriate to my research questions.

ETHICAL CONSIDERATIONS

After permission was received from my University, Morningside School and my School Board, students were given consent forms asking for parental consent of student participation in my study. Students were guaranteed anonymity and confidentiality.

CONDUCTING THE FIELDWORK

In researching, Guba (1981, 3-8) suggests that assumptions concerning the nature of reality, the nature of the inquirer/object relationship, the nature of truth statements, methods, quality criterion, source of theory, knowledge types used, instruments, design and setting will influence the method of inquiry. In reference to these assumptions and their relation to this study, I will examine: the observation procedures, the role of participants, types of knowledge used, the setting, factors of trustworthiness, methods of data collection and data analysis.

Observation Procedures

Gold, (1970) identifies four roles which a field worker can assume: complete participant, participant-as-observer, observer-as- participant, and complete observer. Three of these four roles were used by various participants in this study. As teacher and researcher combined, I was a complete participant. It is important to clarify that although I was a complete participant, I could detach myself from the situation because of the nature of many dramatic activities, and move into participant-as-observer. During the first month of my research, I had a student teacher in my classroom. When my student teacher had taken over as teacher, I was able to shift researcher roles from being complete participant to complete observer. Near the end of the research period, the student teacher returned to the classroom as a knowledgeable observer. All of my "knowledgeable observers" acted in the role of complete observer.

The Role of the Knowledgeable Observers

Education is a complicated affair filled with contingencies which are difficult to predict and to control. Knowledgeable observers need to be aware of the characteristics and qualities specific to education. Eisner, (1977), recognizing the complexities of educational observation, discusses educational connoisseurship stating that educational connoisseurship and educational criticism are part of an appreciative art form drawn from the domain of art criticism. "As a connoisseur, the evaluator must be able not only to observe the range of subtle qualities present in an educational situation but also to see their significance...As a critic, he or she must be able to recreate that situation so that it is accessible to others in its complexity and nuances of meaning." (Mailing and Keepes, 1979, 273) Acknowledging that the complexity of educational phenomena is so dynamic, I needed other finely developed educational eyes to identify assumptions, observe student actions/reactions, and to fill in the context which I could not see. Therefore, my knowledgeable observers became the connoisseurs in my classroom.

The knowledgeable observers had two roles in my study, as the lens and as the data. They functioned as the lens, by looking in on my classes, which helped me to see, shape, discuss, and confirm my findings. Their writings and taped formal interviews also became part of the data material from which themes emerged. These observers - peer teachers, guidance counsellors, drama consultant and learning style consultant, principal, vice-principal, student teachers, and peer researchers, - were used to validate the happenings in the drama room. All of the knowledgeable observers were connoisseurs on the subject of teaching, but all were not connoisseurs in the art of drama.

All observers went through the following routine of pre-interviews, observation of at least one drama period, completion of common observation sheets, one formal, taped post-interview, and one follow-up interview. My interaction, as researcher, with the knowledgeable observers allowed for articulation in the follow-up interviews through discussion, probing, questioning and clarification of the research work. This, in turn, enhanced intellectual clarity for me as researcher.

The Role of the Researcher

The naturalistic researcher is not out to prove the truth of some previous research. (Scott, 1988) Instead, the researcher's objective is to describe a situation in rich detail, so that others who read the work can learn from, identify with, or compare situations they have encountered or may encounter. The naturalistic researcher is context dependent. The naturalistic paradigm allows for this investigation of context by recognizing that the inquirer and the respondents must interact and through that interaction both sides are influenced. In this research situation, I was the connoisseur and the critic, as defined earlier in this paper.

> "What the critic aims at is not only to discern the character and qualities constituting the object or event (but also to provide) a rendering in linguistic terms of what is is that he or she has encountered so that others not possessing his level of connoisseurship can also enter into the work...The function of criticism is educational. Its aim is to lift the veils that keep the eyes from seeing by providing the bridge needed by others to experience the qualities and relationships within some area of activity...The critic must talk or write about what he has encountered; he must..provide a rendering of the qualities that constitute that work, its significance, and the quality of his experience when he interacts with it." (Eisner, 1977, 2)

Therefore, according to Eisner, my role in this naturalistic research was as critic. I was to gather as much data as possible through participant observation, participation, journal recordings, tape recordings, observation charts and fieldnotes, formal and informal interviews, and the use of knowledgeable observers or connoisseurs. As a researcher, I was a critical instrument in this project.

The Role of the Teacher/Researcher

Through combining the roles of teacher and researcher, I was aware that my biography and values would be brought into the research setting. Although I used many tactics to clarify and limit how I filtered the data, I recognized that it was neither possible nor desirable that I separate myself from the setting, the participants, the data or the analysis. (Lawrence, 1986) I also did not want to to disassociate myself from my own level of expertise, background or connoisseurship.

"The value of what educators intend or achieve is to some degree a function of the contexts in which their work is done." (Greene, 1973, 3) In the role of teacher, I prefer to define myself as an educator, or as one who delves into the meanings of the contexts which surround me and my students. Greene suggests that those who pursue educational philosophy discover the educational enterprise as it engages the educator - "doing it from his vantage point as actor and from the vantage point of his newest experience and his most recent fears", therefore, "to become critically conscious of what is involved in the complex business of teaching and learning." (7) Greene further states, "we are concerned with the teacher as a human being who generates a variety of symbolic structures so that he (as he expects his students to do) can look from different angles on his life-world." (11)

Heathcote says that "teachers are creators of learning situations for others" (Johnson and O'Neill, 1984, 50) and Butler simply states that "each teacher brings a unique self to the classroom." (1984, 39) The styles, procedures and practices of the the teacher are dependent on the teacher's subject and teaching knowledge. Heathcote identifies the changes of register in the teaching role. I lived through these roles as a drama teacher:

> -the deliberate opposer of the common view in order to give feedback and aid clarity of thought.
> -the narrator who helps to set mood and register of events.
> -the positive withdrawer who 'lets them get on with it'.
> -the suggester of ideas, as a group member.
> -the supporter of tentative leadership.
> -the 'dogsbody' who discovers material and drama aids.
> -the reflector who is used by the children to assess their statements.
> -the arbiter in argument.
> -the deliberately obtuse one, who requires to be informed, and the one who believes that the children can do it.
> (Johnson and O'Neill, 1984, 59)

Therefore, as teacher, while integrating learning style methods, I was responsible for teaching grade eight developmental drama following the Curriculum designed by Alberta Education. As an educator, I was probing and clarifying for myself, the meanings of education, drama education, the role of the teacher, teaching styles, student learning through drama and learning styles. As researcher, I was aware of my need to answer the question, how does developmental drama allow students to encounter their natural learning style?

Knowledge Used

In this study both propositional and tacit forms of knowledge were used. Propositional knowledge was in the form of written work generated by the students, the teacher/researcher and the knowledgeable observers. All involved used tacit knowledge such as intuitions, feelings, and apprehensions. Tacit knowledge - that is knowledge gained from experience of objects and events, experience with propositions and rumination about them - for the teacher, the teacher as researcher, was important. The students used tacit knowledge to deal with the dramatic situations. The knowledgeable observers used their tacit knowledge in applying their personal theoretical and historical knowledge to the classes they encountered. Polyani (1958) suggests that explanation belongs more to propositional knowledge while understanding belongs more to tacit knowledge. Explanation and understanding are the foundation of this case study.

The Setting

Guba identifies one key assumption a naturalistic paradigm as the setting. The setting must be natural and uncontrolled. The setting for these students was their natural classroom setting that they had been accustomed to for four previous months. I did not attempt to control the dramatic activities for the sake of the research, however learning style theories were integrated into the drama work.

FACTORS OF TRUSTWORTHINESS

Guba (1981, 3-8) maintains that validity, reliability and objectivity are scientific terms which belong within the framework of the rationalistic paradigm. He counters that credibility, transferability, dependability and confirmability are appropriate terms for the naturalistic paradigm. However, both the rationalistic and naturalistic paradigms have four aspects in common: truth value, applicability, consistency and neutrality. The following table simplifies the information.

Table II - 1

Scientific and Naturalistic Terms Appropriate To The Aspect of Trustworthiness

ASPECT	SCIENTIFIC TERM	NATURALISTIC TERM
Truth Value	Internal Validity	Credibility
Applicability	External Validity Generalizability	Transferability
Consistency	Reliability	Dependability
Neutrality	Objectivity	Confirmability

(Guba, 1981)

To understand the trustworthiness of material in this study, I followed the model provided by Guba.

Credibility

To accomplish credibility Guba and Lincoln (1981) suggest that a prolonged period of investigation, peer debriefing, structural corroboration and persistent and rigorous observation are needed. Ways to provide credibility are through triangulation, collecting related documents and the continual testing of one's interpretations against one's data. Triangulation is "essentially a strategy that will aid in the elimination of bias and allow the dismissal of plausible rival explanation such that a truthful proposition about some social phenomenon can be made." (Mathison, 1988, 13) This credibility illustrates the thoroughness of the research and allows the reader to find a comprehensive understanding of the event.

Transferability

Transferability, "does not attempt to form generalizations that will hold in all times and in all places, but attempts to form working hypotheses that may be transferred from one context to another depending on the degree of 'fit' between the contexts." (Guba, 1981, ll) Thick and rich description enhances the possibility of transferability.

Dependability

In qualitative research, the exact conditions can never be repeated by another researcher. However, to create dependability, one must ask if the study conducted under similar circumstances, would produce similar results. Stake (1978) suggests this dependability becomes a naturalistic generalization which recognizes the similarities of objects and issues in and out of context and by sensing the natural covariations of happenings.

Confirmability

Confirmability is concerned with the degree to which the findings of a study truly reflect the experiences of the key informants rather than the biases of the researcher. Guba and Lincoln (1981) suggest that through between-methods triangulation, combining data gathering and analyzing methods, "observers can achieve the best of each while overcoming their unique deficiencies." (Denzin, 1978, 302)

DATA ANALYSIS

Stake (1978) has identified commonalities found in the social sciences literature which reveal that most case studies feature: descriptions that are complex and holistic, data that is gathered at least partly by personalistic observation and writing that is informal in style. The writing often includes narrative, verbatum quotation, illustration and even allusion and metaphor. The characteristics of the method are suited to expansionist rather than reductionist pursuits. Stake further suggests that although themes and hypotheses are important, they remain subordinate to the understanding of the case. In order to identify the material relevant to the case study the data has to be analyzed. The data analyzed for this case study were the field notes including the: researcher's journal/log book, observation inventories, taped informal interviews, taped formal interviews, tape recordings from each drama class, Learning Style Inventory statistics, documents, student-generated-products, photos and video material.

The Journal

The researcher's journal included a log book of each drama class that was observed. As the research began, the log book fit into the concept of theoretical sampling, (Glaser and Strauss, 1967, 45). Craig (1984) found that the researcher's log book became only part of the data collection, and that,

> "Data collection is for the purpose of generating a theory whereby the analyst jointly collects, codes and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges.
> (Craig, 1984, 25)

Combined into the log book were journal entries of various types. The journal entries were coded into categories of conceptual notes of several kinds:

methodological, personal, inferential and theoretical.(Lundsteen, 1986) Examples of each category are:

L

Methodological: "I am thinking that I will have to be very organized and give the students short term objectives so they can hold the attention to the short task...and only give them one objective at a time." (Journal entry, September 9)

Personal: "I feel uncomfortable when it is messy like this." (Journal entry, March 15)

Inferential: "James was finished so fast. I didn't trust that he had done it properly, but??" So, I gave him the tape recorder to go around and listen to conversations as people finished their work. ~~He felt~~ good about that." (Journal entry, February,29)

Theoretical: "This poem could certainly be analyzed as to Right Brain/Left Brain styles, symbols and Gregorc's categories." (Journal entry, February 11)

Observation Inventories and Interviews With Knowledgeable Observers.

Each knowledgeable observer had to complete a common Observation Inventory about the drama class he or she had attended. (see Appendix B) Prior to each drama class there was an informal, usually non-taped session informing the observer of the pedagogical nature of the class. If the observer was observing for a second time, this interview was recorded. Either way, I entered information into my journal about the pre-class situation. I had designed my own journal entry sheets for my log book. (see Appendix A)

Following each drama class, there was an immediate formal interview, taped and later transcribed. The interview discussion centered on the information entered onto the observation inventory sheets. Early in the research including the knowledgeable observers, it was obvious that certain themes were emerging. Therefore, all transcribed notes and journal entries were coded as to themes, such as: sound in the drama class, student working groups, and the role of the teacher in the class. After each formal interview a post-interview was held to confirm the data previously given.

Tape Recordings of Each Session

Each drama class was taped either on audio cassette or video cassette. After listening initially to the tapes, I would make immediate journal entries as to the content and this information would become text for data analysis. After listening many times to the tapes, categories of information began to emerge. Therefore, themes were emerging, such as recognizing: the learning styles of the students, the manner in which drama allowed students to explore various learning style activities, and my own teaching style and how it related to the learning styles of the students. The themes were coded.

Learning Style Inventory Data

The data received from the Dunn and Dunn Learning Style Inventory was recorded and tabled. This information was used to highlight, understand and reason with the students' involvement in their activities. (see Appendix F, G)

Archival Data

For the purposes of this research, archival data was information such as report card marks, student information sheets, and other informal learning style surveys such as Torrence's Test for hemisphericity, Your Style of Learning and Thinking, (see Appendix E) Dunn and Dunn's Preference for Time of Day and a Modality Survey. Video tapes of student project works were recorded. Photographs of students at work were also taken. This material added texture to the information which emerged in the study.

Conclusion

Through data analysis, re-occurring themes began to emerge. As the themes became apparent, the research was guided to develop the theory of how developmental drama allows students to uncover their natural learning style.

CHAPTER THREE

THE CONCEPT OF LEARNING STYLES

Learning Styles is used by educators as a generic term or an umbrella concept which recognizes individual learning differences. (Gregorc, 1982, and Butler, 1984) Many theoretical frameworks under the auspices of Learning Styles are emerging to make Learning Styles a complex field of study. Butler comments on the many frameworks and operational models by stating, "Just as we can identify schools of psychology by examining their philosophical beliefs and subsequent operational and implementation strategies, so too, can we identify several approaches to learning style." (1984, 3)

Until the past decade, Learning Style has been recognized as "cognitive style" which was originally coined by Allport (1937). At that time, cognitive style referred to the individual's quality of living and ability to adapt, which was influenced by distinctive personality types. By 1969, Messick had further refined the cognitive style definition to become the "information processing habits representing the learner's typical mode of perceiving, thinking, problem solving and remembering." (Keefe,1979,8) Therefore, cognitive style was concerned with how the mind actually processed information and how the individual perceptions affected that information. (Hill, 1971, Witkin, 1975) It is important to understand that cognitive style and learning style, although related to, are not the "intellectual ability" of a person.

By 1979 at the meeting of the National Association of Secondary School

Principals (NASSP), Keefe defined learning style as the:

> "characteristic cognitive, affective, and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment."
>
> (1979, 4)

Dunn summarized the work of learning style researchers by stating:

> "Learning style is the way individuals concentrate on, absorb, and retain new or difficult information or skills.style comprises a combination of environmental, emotional, sociological, physical, and psychological elements that permits individuals to receive, store, and use knowledge or abilities."
>
> (1983, 21)

Gregorc, in his Energetic Model of Styles stated that "Styles are symptoms of underlying psychological frames of reference and of driving mental qualities of the mind." (Butler, 1984, 6)

Presently, there is no one definition that describes learning style. However, the many theorists have the same goal in researching learning styles and that is to observe and identify the learning habits, behaviors or styles of individuals.

Just as cognitive style is not a measurement of intellectual ability, neither is learning style a measurement of intelligence. Keefe, (1979) examining the work of Messick (1976), describes the noticeable differences between styles and intellectual abilities.

> "Abilities deal with the 'content' of cognition; they tell 'what' kind of information is being processed by what operation and in what form. Styles, on the other hand, illustrate the process of cognition: They tell 'how' information is being processed. Abilities measure specific innate capacities and are value directional - more of an ability is better that less. Styles are controlling mechanisms concerned with manner or preference of performance and value differentiated -

> each extreme style has learning - adaptive value in differing circumstances."
>
> (1979, 8)

The meeting of the National Association of Secondary School Principals in 1979 was important in establishing learning styles as an educational element. Learning style philosophies and theoretical frameworks were recognized. Indeed, articles were brought forward and books were published under the descriptors of learning styles. Until this time learning styles had only been identified as cognitive styles. "Learning style and cognitive style have often been used synonymously in the literature although they decidedly are not the same. Learning style, in fact, is the broader term and includes cognitive along with affective and physiological styles." (Keefe,1979,4)

Cognitive style and its dimensions are only part of learning style. Two other major components of learning styles, recognized by NASSP, are affective style and physiological style. (Keefe, 1979)

By 1984, NASSP had added the psychological style to its subcategories of learning style. According to Keefe,(1979) in order to understand the complexity of learning styles, it is important to understand the elements of the cognitive, affective and physiological styles. Because the cognitive styles are the historical base of learning styles, it is important to recognize and identify the elements of what constitutes cognitive styles. Some of these elements, through learning styles, are placed into different categories and the process is interesting to observe. Below, I have used the work of Keefe, (1979) who lists the elements of cognitive styles according to the work of Messick (1976), to create a chart of the elements of cognitive styles.

COGNITIVE STYLES

Cognitive styles are the base of learning styles. Messick has divided the dimensions of cognitive styles into two basic styles: reception styles and concept formation and retention styles.

Reception Styles

1. **Perceptual modality preference:** is the preferred reliance on one or more of the sensory modes, kinesthetic or psychomotor, visual or spatial and auditory or verbal.
2. **Field independence vs. dependence:** is the analytical versus global way of perceiving the environment.
3. **Scanning:** is the manner in which individuals deploy attention by either scanning or focusing.
4. **Constricted vs. flexible:** is the individual differences in susceptibility to distraction and distortion in tasks with conflicting cues.
5. **Tolerance for incongruous or unrealistic experiences:** is the readiness to accept perceptions which are at a variance with one's conventional experience.
6. **Strong vs. weak automatization:** is the capacity to perform simple repetitive tasks.
7. **Conceptual vs. perceptual:** is the capability to perform novel or difficult tasks.

(Keefe, 1979, 8)

Concept Formation and Retention Styles

1. **Conceptual tempo:** is the individual's differences in the speed and adequacy of hypothesis formulation and information processing on a continuum of *reflection vs. impulsivity*.

2. **Conceptualizing styles:** individual's different approaches to concept formation from from *conceptual differentiation through to compartmentalization.*
3. **Breadth of categorizing:** is the preference for a broad or narrow range in establishing conceptual categories.

4. **Cognitive complexity vs. simplicity:** is the number of dimensions the individual uses to construe the world.

5. **Leveling vs. sharpening:** is the individual's variations in memory processing.

(Keefe, 1979, 9)

AFFECTIVE STYLES

According to Keefe, the second component of learning styles is the affective style. The affective style is a product directly related to the learner's motivation, and is concerned with the dimension of attention, emotion, and valuing. The individual processes of arousal, expectancy and incentive combine to create the learner's motivation. "Affective learning styles are these same motivational processes viewed as the learner's typical mode of arousing, directing, and sustaining behavior." (Keefe, 1979, 9)

Affective style is laden with values found within the learner's cultural environment. Keefe reminds us that like cognitive style, affective style is a hypothetical construct, therefore we can not directly observe a learner's affective style. We may only 'infer' the style from the learner's interaction with his or her own environment.

Remembering that the basis of affective style is motivation and determination let us examine these two dimensions of affective style. Again, Keefe, is using the work of Messick to explore the affective style.

Attention Styles

1. **Conceptual level:** a broad developmental trait which examines how much structure an individual needs in learning.

2. **Curiosity:** the individual's differences in attraction to the novel aspects of the environment.

3. **Persistence or perseverance:** the learners willingness to labor beyond the required time.

4. **Level of anxiety:** the individual's level of apprehension and tension under stressful conditions.

5. **Frustration tolerance:** the individual's ability to face conflict or disappointment.

(Keefe, 1979, 11-12)

Expectancy and Incentive Styles

1. **Locus of Control:** the individual's perception of the consequences of behavioral outcomes on a continuum of internality vs. externality.

2. **Achievement motivation:** the individual's patterns of planning and striving for some internalized standard of excellence.

3. **Self-Actualization:** the individual's feeling and striving for a sense of adequacy.

4. **Imitation:** the tendency to repeat actions that appear favorable in a given situation.

5. **Risk taking vs. cautiousness:** the person's willingness to take chances to achieve a goal.

6. **Competition vs. Cooperation:** the person's tendency to be motivated by rivalry or to be involved in the sharing of an experience.

7. **Level of aspiration:** the learner's perception of his or her past successes or failures in relation to school performances.

8. **Reaction to reinforcement:** the individual's responses to reward and punishment.

9. **Social Motivation:** the value-based behavior illicited from variations in social and racial/ethnic world views.

10. **Personal interests:** the individual's patterns of choice in situations free from external stress.

(Keefe, 1979, 13-14)

PHYSIOLOGICAL STYLES

The third component of learning styles are the physiological styles. Physiological styles are the most observable of the three learning styles components. "Physiological styles are biologically based modes of response that are founded on sex-related differences, personal nutrition and health, and accustomed reaction to the physical environment." (Keefe, 1979, 9) Keefe uses Messick's definitions to address the physiological styles.

Physiological Styles

1. **Masculine-feminine behavior:** the variations in typical brain-behaviors responses of boys and girls.

2. **Health related behavior:** the individual's response resulting from the physical presence of malnutrition, hunger and disease.

3. **Time rhythms:** the individual's optimum learning patterns depending upon the time of day.

4. **Need for Mobility:** the learner's need for change of posture or location.

5. **Environmental elements:** the individual's preference for or response to varying levels of light, sound and temperature.

(Keefe, 1979,15)

The above listed elements are the dimensions of learning styles as recognized by the NASSP in 1979. These dimensions were taken and summarized from the work of many theorists. At that time some frameworks were left out because of their questionable applications of theory or because the theory was absorbed by an already established theory. The educator must realize that all dimensions of learning style are not applicable to one individual learner or learning situation. Different learning style theories may assist the learning problems and growth of different individuals. However, there are certain quantifiably tested elements which seem to have the greatest implication for improving the learning process:

-perceptual modality preferences
-field independence vs. dependence
-conceptual tempo
-leveling vs. sharpening
-conceptual level
-locus of control
-social motivation
-masculine-feminine behavior (NASSP, 1979, 17)

Keefe admits that all of the above elements are not scientifically or quantifiably measurable and further states, "No current learning style instrument provides a truly comprehensive assessment of the cognitive, affective, and physiological domains of learning style." (Keefe, 1982, 53) Butler and Gregorc, through a phenomenological approach, and by using style as a tool for personal interpretation, hope to guide people to their personal core and essence. In Gregorc's view, "The primary purpose of life is to realize and actualize one's individuality, spirituality and collective humanness." (Butler, 1982, 5) Qualitatively, through phenomenology, Gregorc aims to uncover the nature and roles of the individual's perceptions to gain an understanding of the individual's fundamental consciousness. Learning style is concerned not only with how the mind receives, interprets and attaches personalized meanings to new information, but the theory is also an attempt to create a current psychology which permits us to investigate, classify and understand the phenomena of teaching and learning. (Gregorc, 1984) "Style can be a common language that allows one mind to translate itself to another." (Butler, 1984, 7) Simply, it is the manner in which we communicate meaning to one another. If we understand that people learn in and think in different ways or styles and that these styles can all be correct modes of thinking and behaving, then we should not limit our view of education to one reality - whether it be scientific, phenomenological or empirical.

THE BANDWAGON PROBLEM

The learning styles movement is becoming a popular approach to teaching and with popularity there are problems. There are now so many learning style models and inventories, that an educator could not hope to incorporate all of them into his or her program. With each model comes a different focus or theoretical framework. For example, Canfield and Lafferty (1970) focus on conditions, content, modes and expectations, whereas Dunn and Dunn (1984) focus on itemizing stimuli and elements. Gregorc (1982) emphasizes phenomenologically distinctive behaviors and dualities, while Hunt (1979) refers to conceptual level.

Kolb (1971) specifies hereditary equipment, past experience, and the environment, while Schmeck (1982) contrasts deep and shallow information processing. Myers-Briggs (1975) are concerned with four mental processes based on the theories of Carl Jung. Swassing and Barbe (1979) focus on perceptions as described through modality experiences. Yet, with all the different foci abounding Keefe believes that, "Learning style diagnosis opens the door to placing individualized instruction on a more rational basis. It gives the most powerful leverage yet available to educators to analyze, motivate, and assist students in school. As such, it is the foundation of a truly modern approach to education." (1979, 132)

Gregorc warns that despite the positive potential and the rewarding results emerging from learning style research, there is, "an equally negative potential for the misuse, abuse, and diminution of the information and research data." (1982, 8) With this misuse and for a variety of reasons he fears that learning styles could become another educational fad with people jumping on the bandwagon.

Gregorc feels that the Average Children Concept is a hidden fact grounded in present educational systems. This concept can not tolerate the possibilities of individuality from the students, except in non-mainstream activities such as alternative schools and special education.

Superficiality in teacher education is another negative possibility. Teachers must make a commitment to learning the complexities of learning styles and not be satisfied with a superficial awareness. Gregorc also warns of the "snake oil peddlers" who are consultants with a low commitment to the study of learning styles and brain research.

Gregorc is concerned with the statement often connected with learning style, that matching learning styles with teaching styles will save education. This statement according to Gregorc is global and sublime, because learning styles is not a panacea for all problems, however it is a tool promoting the psychology of learning and teaching. Finally, Gregorc warns of the possibilities of scholastic arrogance where researchers try to cast the world in their own image, and not the true image presented by the research data.

Such forces can hamper the progress made in the use of learning style/brain research. For this reason, it is important to treat both the people and the research involved with respect, integrity and rigor.

THE DUNN AND DUNN LEARNING STYLE MODEL

The Concept

Rita Dunn of St. John's University, New York was involved in working with graduate students to create methods for teaching educationally disadvantaged students. Through practical experience and research work, Dr. Rita Dunn joined with her husband to organize a comprehensive theory about individual characteristics that affect learning. Together they found that a person's learning style was comprised of a combination of five elements: environmental, emotional, sociological, physical and psychological. Within each of the elements are certain stimuli which also affect the learner's style. "Learning style is the way individuals concentrate on, absorb, and retain new or difficult information or skills."(1983,496)

The Dunn's designed and tested their first Learning Style Inventory in 1975. According to the Dunns, the Learning Style Inventory from 1978 through 1986 went through revisions and incorporated several changes and improvements in analysis and reliability.

I have summarized, through an analysis of their research, four major assertions made by the Dunn's:

1. most students can identify their learning styles,

2. no one individual is affected by all of the elements and that most people are affected by six to fourteen elements,

3. when an element is important, most students can verbally identify a positive or negative reaction.

4. statistically students achieve significantly better when taught through their preferred styles.

(Dunn, 1983)

It is important to remember that the results of the Dunn and Dunn inventory illustrate the students' learning preferences and not the students' learning abilities. The results of the Dunn and Dunn Learning Styles Inventory are to provide guidelines for "prescribing the type of environment, activities, social grouping and motivating factors that maximize personal achievement" and that facilitate student learning. (Dunn, Dunn, & Price, 1987, 5)

The Model

The Dunn and Dunn Learning Style Inventory for students in grades three through seven, is a self-report, 104 item questionnaire based on a five point Likert Scale from Strongly Disagree to Strongly Agree. Many of the questions in the inventory yield information in a highly subjective and personal manner. In this fashion students contribute to an identification of how they each learn. (p.5)

Some sample questions are:

I study best when it is quiet.	SD D U A SA
I usually start my homework in the afternoon	SD D U A SA
I can ignore most sound when I study.	SD D U A SA
I like to make things as I learn.	SD D U A SA

(Learning Style Inventory, 1987)

After the answers have been filled in, the sheets are then forwarded to Price Systems for computer analysis. The printout contains an Individual Profile Analysis for each student involved. It also contains a group summary analysis of the tested class. Each Individual Profile contains: the student's name, raw score, standard score (mean of 50- standard deviation of 10), LSI area, and a graph of the relative location of each person's standard score in each area.

Individuals with scores between 40-60 indicate that their personal preferences are neither high nor low, therefore those elements are not critical to that student's style of learning. In the group summary there are two printouts. The first printout analyses the elements for which students score 60 or higher and the second printout is for those students who score 40 or lower.

The five elements which affect learning style are, environmental, emotional, sociological, physical and psychological. Within each element are stimuli which also affect the learner's style. The elements and stimuli, therefore, are a summary of how a student prefers to learn.

The Environmental Elements

Silence versus sound: some students can concentrate only in silence, while other students need noise to permeate their environment before they can focus. Other students may block out sound when involved in a task.

Bright Lights versus Low Light: some students need a brightly lit environment while others work efficiently in a dimmer light.

Warm versus Cool: some students prefer a warmer temperature while others function more effectively in a cooler environment.

Formal design versus informal design: the need for an informal design increases with adolescents than with other groups (Price, 1980). Some students need to sit in conventional desks while others prefer lounging on the floor.

The Emotional Elements

Motivation: the individual's desire to achieve academically.

Persistence: the only stimulus which is relate to intelligence, and this is the individual's inclination to complete assigned tasks wholly or a few steps at a time.

Responsibility: often related to conformity (White, 1980, 1982) and this is the desire to do what is expected.
Structure: the learner's need for specific or latitudinal task directions.

The Sociological Elements

Sociology: involves learning alone, with peers, in pairs, in teams with adults, with media or in a combination of several ways.

The Physical Elements

Auditory: an auditory learner can remember approximately 75% of what is discussed in a 40 - 50 minute lecture or discussion.

Visual: a visual learner can remember approximately 75% of what is seen in a 40 - 50 minute cycle.

Tactile/Kinesthetic: these learner's learn by manipulating resources and experimenting through activities. "Perceptual preference seems to evolve for most students from psychomotor (tactile/kinesthetic) to visual and aural as the learner matures" (Keefe, 1979, 127)

Time of Day: some people absorb more information during certain time periods of the day. Price's (1980) research, demonstrates that no matter when a class is in session, it is the wrong time of day for almost a third of the population.

Intake: some people need to chew, drink or eat while working, others do not.

Mobility versus Passivity: the individual's need to move about while engaged in a learning task.

The Psychological Elements

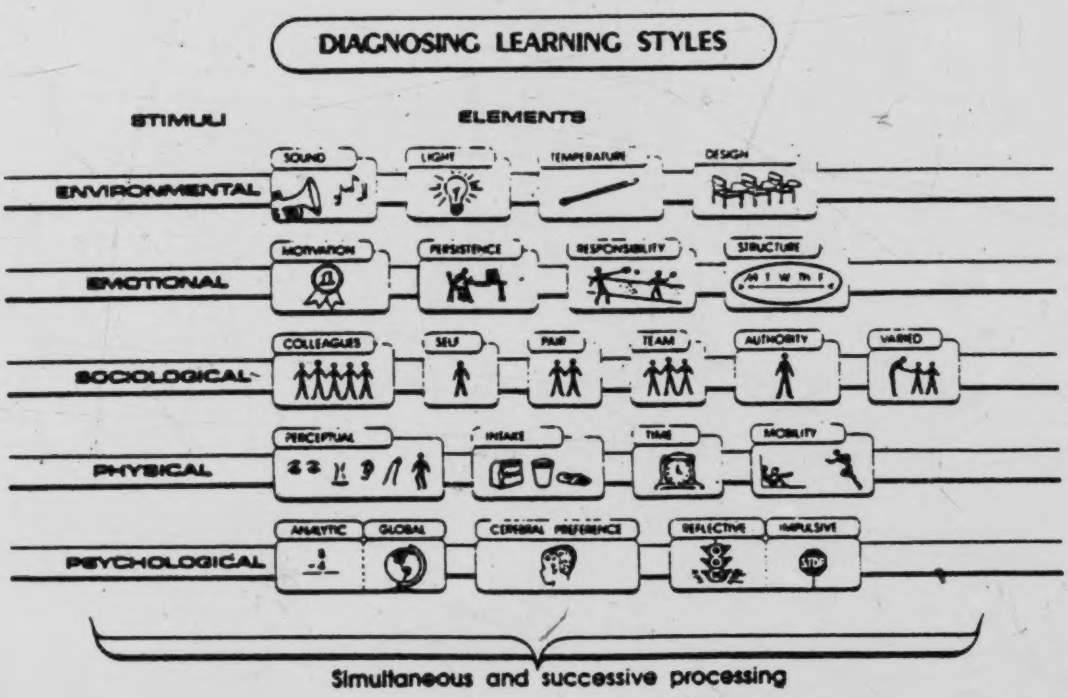
Global versus Analytical: some students need step by step structure (analytical) while others arrive through a Gestalt processing of what is taught (global).

Hemispheric Preferences: some students are right brained while others are left brained. (Dunn et, al, 1982) Dunn's research found that right brained students are: less bothered by sound when studying, prefer dim illumination, require an informal design, are less educationally motivated, are less persistent, prefer learning with peers, and prefer tactile to auditory or visual stimulation - even at the high school level.

Impulsivity versus reflectivity: the student's need to dwell upon information internally versus saying what comes spontaneously to the mind.

(Dunn, Dunn, 1987)

The following is a pictorial chart of the Dunn and Dunn Learning Style Model.


DIAGNOSING LEARNING STYLES
STIMULI
ELEMENTS
ENVIRONMENTAL
SOUND
LIGHT
TEMPERATURE
DESIGN
EMOTIONAL
MOTIVATION
PERSISTENCE
RESPONSIBILITY
STRUCTURE
SOCIOLOGICAL
COLLEAGUES
SELF
PAIR
TEAM
AUTHORITY
VARIED
PHYSICAL
PERCEPTUAL
INTAKE
TIME
MOBILITY
PSYCHOLOGICAL
ANALYTIC
GLOBAL
CEREBRAL PREFERENCE
REFLECTIVE
IMPULSIVE
STOP
Simultaneous and successive processing

Designed by RITA DUNN & KENNETH DUNN

Figure 1. Diagnosing learning styles.

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Application of the Dunn and Dunn Model in this Thesis

The Dunn and Dunn Learning Style Inventory was chosen as an instrument in this research because of the comprehensive study and categorization of the elements and stimuli. I felt that the learning style elements and stimuli were natural categories of the learning opportunities, channels and styles offered and observed in my drama classes. I felt the elements and stimuli found in The Dunn and Dunn Inventory represented similar elements and stimuli inherent in my developmental drama program. It was the varied emphasis on certain learning style elements combined with dramatic content that allowed for variation and flexibility in student learning.

The intent of the research was to understand how developmental drama allowed drama students to explore their learning styles naturally. It is also important to recognize that Dunn and Dunn use the inventory not as a measure of underlying psychological factors, value systems or quality of attitudes, rather they use it to summarize the environmental, emotional, sociological, and physical preferences the individuals have for learning. The Inventory does not attempt to explain **why** these preferences exist. It indicates how students prefer to learn and it does not indicate the skills the students use and Dunn Inventory Was Combined with the Drama Class

How the Dunn and Dunn Inventory was Combined with the Drama Class

When I first studied the Dunn and Dunn Inventory, my basic assumption was that its creators must have been drama educators. The stimuli the Dunn's identified were stimuli which I, as a drama educator, would ordinarily work with in the drama class to allow exploration in dramatic learning. I felt that the Dunn and Dunn Inventory was a comprehensive survey of the learning stimuli that occurred naturally in a developmental drama class.

The environmental elements which affected a student's learning style were the very elements which would affect any of my drama classes. Heathcote describes the elements of: light - dark, sound - silence, and movement - stillness, as elements which can vary in degrees within a drama class. The Dunn's chose as environmental elements: noise and quiet, light and dark, warm and cool, and formal and informal design.

The sociological elements, working solo, in pairs, in groups, as a team or as a class, are the foundations of the drama class. Christopher Day suggests that "in any one lesson, students should experience working together as a class, in large and small groups, and individually." (Booth, 1985, 60) Social interaction occurs when individuals act together in society. One goal of the Drama Curriculum, designed by Alberta Education, is to "acquire knowledge of self and others though participation in, and reflection on, dramatic experience." (3) What better way is there to pursue this goal than to explore the sociological elements suggested by Dunn and Dunn?

The emotional elements of motivation, persistence, responsibility and internal/external structure are elements which any teacher, let alone the drama teacher, should work toward positively enhancing. The Drama Curriculum states in its philosophy that the "dramatic growth parallels the natural development of the student. This growth is fostered in an atmosphere which is non-competitive, cooperative, supportive, joyful yet challenging." (2) These emotional elements are easier to work on through dramatic activity because of the cooperative learning and interdependent nature of the drama class.

The physical elements concerning perceptual modes of receiving information, food intake, time of learning preferences, and mobility concern the drama class. The active drama class abounds with stimuli which allow for different learning modalities. Mobility in the drama class is a must. Indeed, one of the five necessary disciplines in junior high drama is movement, involving the possible forms of tableaux, creative movement, mime, dance drama, improvised dance, choreographed dance or stage fighting. Food intake is important to this study, especially since the drama class was the last period in four, before the lunch hour. If students brought food to my drama class they were allowed to eat it during circle time. Time of Day for preferred learning is also important. Dunn and Dunn research has proved that some students prefer morning learning compared to afternoon learning or evening learning. All of these elements are important and necessary to the unique drama class.

BUTLER'S LEARNING STYLE THEORY

The Learning Style Communicator

Dr. Kathleen Butler created the Learning Style Communicator for teachers who were familiar with Dr. Anthony Gregorc's Model of Style (1982) for adults. The phenomenological and theoretical base of Gregorc's work is grounded in the fact that each person views the world from his or her own frame of reference. "In conducting a phenomenological examination one must undertake a study of one's own personal style, biases, prejudices, perceptions, attitudes, and points. of view." (3) Gregorc and Butler agree that each person's style becomes his or her frame of reference.

The aim of Butler's work is to aid teachers in observing, recognizing and phenomenologically understanding the learning styles of his or her students. The Gregorc Mediation Ability Theory (1982) provides an organized way to consider how the mind works. Gregorc theorizes,

> "that every mind has an overarching set of natural qualities designed to promote the individual's relationship with self and the work, thus to realize, to

> be aware of, and to actualize, act upon one's driving forces. These qualities through mind channels. serve to help express one's natural driving forces." (p.6)

It is important to understand that styles are uncovered naturally during **unguarded** moments - only when one does not role play.

The preferred mode, therefore, is often habitual and represents that qualitative uniqueness of the individual.. When the preferred mode is identified, the learning style is also identified.

There are four important aspects of the Butler model which I used in this research:

1. the use of the descriptors from the Learning Style Communicator as tools to help me understand student learning styles,
2. the identification of natural stages of style development and the stages beyond natural style development,
3. the importance of the teacher's personal understanding of his or her teaching style as well as his or her learning style,
4. the concept and application of the Style Differentiated Model Of Instruction™.

The Descriptors

Gregorc and Butler identify four learning style channels or mediation abilities. The mediation abilities individually are perception, ordering, processing and relating. People may perceive their world in a concrete manner or an abstract manner. People may order their world in either a sequential manner or a random manner. Depending upon the situation or conditions different manners may be used at any given time. Gregorc reminds us that everyone uses all four qualities, but, "each person is qualitatively different from every other human being" (7)

The four learning style channels are:

1. abstract sequential: this style describes one as intellectual, logical, conceptual rational and studious.

2. abstract random: this style individualizes one as emotional, interpretive, sensitive, holistic and thematic.

3. concrete sequential: this style identifies the person as practical, predictable, to the point, organized, and structured.

4. concrete random: these people have a style that describes them as original, experimental, investigative, option oriented, and risk taking.

Some people have the ability to move from one channel to another channel. Others do not have the ability and can only view their world from one perspective. These people have non-dominant channels which must be recognized because the non-dominant channels can be:

1.. nurtured and developed by the student and the teacher and the environment.
2. broadened to allow use when needed.
3. recognized as a limitation that requires attention and energy.
4. ignored.
5. a source of fatigue and frustration.

(Butler, 1984, 26)

The descriptors used in the Learning Style Communicator (see Appendix D) will aid the classroom teacher in understanding a student's individual traits. Butler cautions that, "the teacher must completely understand his/her own learning and teaching style before attempting to assess the styles of others."

> "Based on the philosophical position that the teacher is the primary force in the classroom, the Learning Style Communicator provides the means for the teacher to be a more effective listener, watcher, and questioner of individual students' stylistic differences. Using this

> approach, the teacher retains the responsibility for"knowing" his/her students firsthand."
>
> (introduction, iii)

STAGES OF STYLE DEVELOPMENT

Learning Style is identified by our outward behaviors which signal to others which channels we are using. Of course, style is influenced by the environment and the situations surrounding us. However, in the process of self-actualization and self realization, some people are at different levels of style development. Butler has identified five levels which guide one to their natural style:

1. **the developed style:** is one we always use regardless of the environmental demands. People with a developed style let their style shine through with an unobtrusive elegance. These people may resent the people and the environment which will not let them operate within their natural and developed style.

2. **the emerging style:** is the development and the maturation of a subdued natural style. For emergence, the individual needs opportunities to discover his or her natural style. Often when the opportunities do not arise, these people are not allowed to shine, therefore they are seen as underachievers.

3. **the adjusted style:** is a style a person uses to accommodate and please others, although it is not a natural style. The person using the adjusted style has some degree of style flex that allows them to move efficiently from one style to another.

4. **the hidden style:** occurs for those with many problems coping within the given environment, usually along with innate pressures. These pressures and environmental problems must be recognized before the natural style can be uncovered.(Butler, 1984, 22)

Beyond Natural Style

Some people can recognize and work comfortably within their developed and natural styles. Natural style allows one to work easily, efficiently and effectively within their style and he or she appears to have a sense of self, inner peace and spontaneous energy flow. (Butler, 1984, 23) When this recognition is understood, these individuals have the possibility of stepping out of their developed style habits and adopting other style habits in order that others will understand them. This ability to step into other styles, "indicates that individual understands personal driving forces, but expresses themselves [sic] through non-dominant channels and in a style that others can understand." (p.24) It is because the individuals can step into the non-dominant channels with ease and comfort, that others would assume the observed behaviors would indicate a natural style.

There are five levels beyond natural style development and they are the:

1. **flexed style:** this style indicates that individuals understand their personal mind channels. These people are able to comfortably express themselves through non-dominant channels in a manner or style which others can understand.

2.**adapted style:** this style occurs when individuals do not understand the importance of their natural mind channels and driving forces. In order to meet the demands of others, the individuals' natural style is put aside.

3. **resistant style:** is used by one who recognizes the strength of his or her own mind channels, but can not recognize his or her own driving forces. These people oppose the driving forces of others.

4. **masked style:** is a style which one believes is natural to herself or himself, yet, it requires so much energy and effort as it does not embrace one's driving forces. (Butler, 1984, 23-24)

STYLE DIFFERENTIATED INSTRUCTION (SDI)

Style Differentiated Instructional match or mismatch of students' learning styles with instructional methods, strategies, technologies, techniques and activities. The matching of student's learning styles allows students to work in their dominant learning channel. When students achieve satisfaction and success with the matching of learning styles, they become confident in their personal abilities. There follows an increase in academic achievement (Krimsky 1982; Carbo 1980; Tannenbaum 1982). When this confidence in understanding and meeting personal stylistic demands occurs, students are ready to move to the bridging techniques or style connectors which allow them to learn by working in different styles. This begins the intentional mismatch of learning styles.

In a positive situation, mismatch occurs to expand the students' abilities into their non-dominant channels of learning styles. In a negative situation, mismatch occurs when students become stifled by an imposed learning style which is not natural for them. This negative situation is to be avoided and the positive expansion into intentional mismatch should be approached with rigorous attention.

To allow for intentional mismatch bridging techniques are to be used. These techniques are the ways to help the learner adapt and cope with material given in a manner unnatural to one's style. Style connectors are used to assist the student. Style connectors are the ways to link an activity, problem, task or situation to the students' natural learning style.

Four Approaches of Style Differentiated Instruction

The four teaching approaches to Style Differentiated Instruction, SDI - single, multiple, variety and dynamic- address the four mind channels or learning styles in varying degrees.

The Single approach allows the teacher who is new to learning style an opportunity to use his or her own learning styles while also allowing the student to work through his or her own learning styles. To use the single approach the teacher would:

1. introduce the topic;
2. indicate the stylistic demands of the assignment;
3. tell students the easiest route to meet the stylistic demands of the assignment;
4. teach the stylistic skills necessary to succeed with the material;
5. provide general assistance by connecting ideas from other learning channels.

(Fitzgerald, 1988, 9)

The multiple approach is used when the teacher addresses all stylistic forms simultaneously. In this situation the teacher would first determine the students' dominant learning styles, then ask them to either work in their preferred style or stretch to another style. The students must understand the objectives they will address and they must be made aware of the nature of the evaluation to follow; it will be based on the style and learning demands of the chosen activity.

The variety approach allows all learning styles to be addressed on a rotating basis within the activity, lesson or unit. The teacher introduces a related activity from each learning style focused upon the theme of the learning situation. The teacher also instructs the students on the easiest and most successful ways of accomplishing the tasks within each learning style. Through observation of student's work and actions, the teacher should spot difficulties and offer bridging techniques if necessary.

The dynamic approach is similar to the multiple approach in that it offers opportunities for activities in all learning styles. The approach becomes dynamic when guided mismatch is used to allow learning appropriate to non-dominant styles. In the guided mismatch, students must succeed at the various cognitive levels respectively: knowledge; comprehension; application; analysis; synthesis; and evaluation. (Bloom) Butler suggests that at the higher levels of cognition for analysis, synthesis and evaluation it is best for the student to return to his or her own natural style.

The Application

I have identified Butler's three goals in applying Style Differentiated Instruction:

1. to develop student's natural abilities.

2. to employ the student's natural abilities in achieving maximum learning goals and personal growth.

3. to teach students to develop the coping skills and flex repertoire needed to meet the various educational demands of others within the educational system.

By using Butler's methods and philosophies, I wanted to observe and uncover the student's natural abilities as found in the drama classroom through the process of dramatic activities. I wanted to maximize the potential of the students' innate abilities or learning styles in order to allow the students to explore their personal growth through dramatic activity. In my drama classroom, I believe that respect for other people's ideas, behaviors and rights is to be inherent in a developing drama class.

I, and other drama teachers, have the role of observing the habits, attitudes and mannerism's of our students, actors and characters. If habits represent the learning style, the drama students with the teacher should learn to recognize their learning styles or habits. This would expand the individual student's personal and dramatic growth. In this manner, by applying aspects of the Learning Style Communicator in my drama classroom, I created situations whereby the students could naturally uncover the coping skills and flexing skills needed to meet the demands of the drama classroom.

COMBINING THE DUNN AND DUNN LEARNING STYLE INVENTORY WITH BUTLER'S STYLE DIFFERENTIATED INSTRUCTION

In my drama classroom, dramatic activities are spontaneously and sometimes intentionally created by varying environmental, emotional, sociological, physical and psychological stimuli depending upon the designed dramatic intent. By recognizing these elements, within the stimuli as described by Dunn and Dunn, I could then focus and be articulate about my teaching instructions, methods and learning situations found in my drama classroom.

Combining the stimuli, with aspects of Butler's Learning Style Communicator, I could then apply the techniques of Style Differentiated Instruction to naturally or intentionally guide personal and dramatic growth of the drama students. Dorothy Heathcote (1976), remarked , that the sociological use of drama allows people to encounter new situations with confidence - we use our past understanding to guide us to incorporate unfamiliar knowledge and create new knowledge. The joining of these two philosophies, both theoretical in nature, the Dunn and Dunn Learning Styletoryler le Communicator teacher/researcher, a 'way in' to use developmental drama as an educational situation where students could naturally uncover their personal learning styles and encounter new learning situations with confidence.

CHAPTER FOUR

ARRIVING AT THE MEANING OF DRAMA FOR THE ADOLESCENT

DRAMA DEFINED

Drama focuses on the development of the whole person through activities designed to develop concentration, the senses, imagination, physical self, speech, emotion and the intellect. (Drama Curriculum). The dramatic growth of the student is to parallel the student's natural maturational development. The overall objective stated in the drama philosophy of the Drama Curriculum is:

> "to foster a positive self-concept in students by encouraging them to explore life by the assumption of roles and by the acquisition of dramatic skills. The imaginative exploration involves setting up a dramatic situation, acting out that situation, communicating within that situation and reflecting on the consequences. It is this reflection which provides the knowledge for self-development." (p. 2)

The Drama Curriculum identifies the characteristics of adolescent development and their relationship to drama. The early adolescent (approximately grades 6 through 9) is affected by physical, cognitive and affective growth. Physically, during adolescence, students are affected by growth spurts, the onset of puberty, and a change in strength and endurance and skeletal growth. Cognitively, the students mainly use concrete operational thinking. In this stage of concrete operational thinking students are learning representation, reasoning, logical rules, and mental ordering operations. Student awareness is heightened by a sense of here and now, while actively engaging in the processes rather than reflecting upon them. Affectively, students are beginning to search for an identity while working through different stages of moral reasoning. By identifying these characteristics of adolescent growth, the Drama Curriculum has begun to integrate drama subject matter and elements of learning styles.

Bolton says of drama, "Of all kinds of imaginative behaviors, however, drama is the only one that articulates inventing, anticipating, recollecting, hypothesizing, creating, musing, and day-dreaming, or any other mode of imagining through the medium of concrete action." (1984, 142) Bolton further states that for the student this is "an interplay between the actual and the fictitious" (p.140) Boal refers to this as 'metaxis'. (1981, 155) Courtney states that, "our inner mental processes make sense out of the world, create meaning - whereby we learn".(1985, 39) He also states that "young adolescents, while improvising, ground their work on hypothesis within their dramatic action. ..Then I hypothesize my role as this, then my actions are so and so, but if I hypothesize my role as that, then my actions become such and such; so who, then, is the real me?" (p.8) As Dorothy Heathcote says, "Dramatic activity is concerned with the ability of humans to 'become somebody else', to 'see how it feels', and the process is a very simple and efficient way of crystallizing certain kinds of information." (Johnson and O'Neill, 1984, 54)

Seely (1976) describe three models of mediation in which young actors enter into metaxis:

EXPLORATORY: these participants are at the stage of "how to do it". The participants are trying to understand their roles in society and are not in need of an audience as their interest is exploring new experiences, feelings, situations and roles.

ILLUSTRATIVE: this adolescent participant is beginning to analyze his or her own inner meaning and that of others, by acting it out - using all of his or her mental powers, body and voice.

EXPRESSIVE: these participants enter this stage during middle and later adolescence. The student begins to understand that his or her dramatic action is of social significance and what is communicated is important to both the actor/participant and the audience.

These three models, similar to the philosophy of the Drama Curriculum, parallel students' natural maturational growth.

Geraldine Brain Siks (1976) identifies three roles students enter into as drama participants. These roles fit within the frame of Courtney's model. They are the:

ACTOR: who identifies and impersonates others. The elements of acting include:
- a) transforming sensory awareness
- b) imagining
- c) mediating through impersonation, later characterization which includes body movement, voice , speech and spontaneity.

PLANNER: is the improvising actor who designs what he and others have to do, either spontaneously or by pre-planning. The students work with the elements of:
- a) character
- b) plot
- c) theme
- d) structure
- e) aural and spatial components

COMMUNICATOR: is for the actor whose performance presupposes communication to an audience. The audience has three characteristics; perception, empathy and assessment.

In combining the philosophy of the Drama Curriculum, the models of Courtney, and the roles of Siks I have established an operational framework for the grounding structure of my drama research class.

THE NATURE OF THE GRADE EIGHT STUDENTS IN THIS STUDY

The average age of the drama student enrolled in this option was thirteen years old. The students participated in their option on a six day time table, meaning that every second day they had drama class. This routine was interrupted by week-ends and holidays. An option is a program of seventy-five classroom hours offered as one choice among many to the students. Students may opt into the drama program at any grade level and do not need previous drama experience. Consequently, there is a mixture of student abilities due to the lack of students' previous drama experiences.

Students enrolled in our school the previous year were asked to choose their preferred four options, among seven, for the grade eight term. For some students, this was the first drama class in which they had participated. A few other students had experienced drama the previous year, in grade seven. Still other students had drama experience from elementary school through to the present time. Some students found themselves administratively placed in the drama class, in other words, drama was not one of their option choices. I had been the third drama teacher in the school in three years, therefore, a sense of tradition and style regarding the drama program was not in place.

Throughout the year and throughout the research, I found the students oscillating between the three modes of mediation, as described by Courtney. My study group students were leaving the security of the "how to do it" stages and moving into the analyzing and expression of the individual's inner being. Some students were beginning to feel that their work meant something to themselves and to others. Near the end of the research, and the end of the drama year, a few keen students were beginning to comprehend that their actions as the actors were important to themselves as well as to the audience.

As participants in many types of dramatic experiences throughout the research, the students also entered into the three dramatic roles at various levels, as described earlier by Siks. The level they moved into, depended upon the dramatic experience. Some students near the end of the research remained in the role of the actor, coming to terms with his or her own personality and the roles of others in society. Many of the students were happy in the role of the planner, deciding on the nature of plot, character, theme, structure and design. Rehearsal or planning time was often exciting and stimulating because of the cooperative learning during the sharing of ideas. Near the end of the research, in May and June, many students had entered into the role of the communicator, hypothetically testing out their many role appearances or role possibilities within the dramatic action. For those students who entered into the role of communicator, I observed that is was necessary for them to enter initially into the role of planner prior to achieving satisfaction in the role of communicator. Students often had to try on the roles of actor and planner, before successfully entering into their new roles.

The students who remained in the role of planner, began to develop an appreciation for the work of those entering into the role of the communicator. All students enjoyed watching and sharing their work and that of others, whether planned or unplanned. In fact, they needed to observe the work of others in order to confirm the possibilities they might have created. Through sharing their work they also confirmed which drama students were taking their work seriously. I have found that because of the nature of creative drama not being a finished work (a fixed concrete product), the students are always safe in presenting their unfinished (work in progress), finished work.

Virginia Koste explains her notion of dramatic thought which is centered in the mental act of transformation and is holistic and spontaneous:

> "It takes place in the primal realm where all natural resources are available, where past and future are contained in the present moment, where no dichotomy between body and mind, memory and foreseeing exists. Inner and outer fuse, as do what we call conscious and unconscious (or preconscious) affect and cognition, emotion, intuition and analysis combine.

> Sweat and cool conjecture, commingle without contradiction. " (1985, 336)

If the students understand that dramatic action, thought and knowledge may be viewed as a similar process to understanding their personal learning style, perhaps they will be enlightened both personally and dramatically. Drama and learning style are both processes which lead to an understanding of self and of others.

THE INTEGRATION OF DRAMA AND LEARNING STYLE IN THIS RESEARCH

One of the criticisms of Learning Style Based Education (Hyman and Rosoff, 1984) is that the paradigm asks teachers to focus on the student's personality factors when deciding how to teach. Through this, the teacher is led to believe that teaching is a dyadic relationship only concerning the teacher and the student's learning style. Hyman and Rosoff state, "the learning style paradigm suffers because it omits consideration of subject matter." (1984, 38) This is a reminder to the teacher that teaching is not made up of a dyadic relationship, but rather, it is made up of a triadic relationship. The three critical and constant elements in the triadic relationship are the teacher, student and the subject matter.

To teach, the teacher must relate to the student in terms of subject matter - in my case, developmental drama. I had to consider the nature and dynamics of developmental drama before deciding on what actions to perform for and with the student.

> "While the teacher's behavior is influenced by his understanding of the student - by his perception and diagnosis of the student's behavior - still the determining factor in the teacher's behavior is not his understanding of the student but his comprehension of

> the subject matter and the demands which clear instruction in the subject matter make upon him." (Smith, 1963, 296)

Conclusion

As teacher/researcher, I wanted to explore this triadic model of teacher, student and subject - teaching styles, learning styles and developmental drama. Through the framework of the case study method, I could examine how developmental drama allowed the students' natural learning styles to be discovered or uncovered. As a teacher, I needed to be rigorous in my attention to the nature of developmental drama and its effects upon the students. Also, I could personally enhance my professional knowledge, and thus, be willing to incorporate my findings into my teacher role. As researcher, I could integrate the two paradigms of learning styles and developmental drama. With this integration I could observe the students' actions and interactions of learning style as applied in a developmental drama learning environment.

CHAPTER FIVE

DATA PRESENTATION AND INTERPRETATION

INTRODUCTION

Through this research various themes arose. Difficulty in identifying and isolating the themes occurred in trying to extract elements or stimuli as insular, separate entities. The dynamic nature of both developmental drama and learning style integrates and synthesizes many components. Therefore, the themes in isolation were not in true isolation. As in the theatrical world, the themes were held in isolation for re-framing - an opportunity to consider the elements in context with its surroundings. The themes, therefore, were affected by various contributing elements and would not have emerged as themes without the interweaving of those interacting elements.

The themes which initially emerged concerned the interaction of drama and the learning style elements of the psychological, environmental and sociological components. These first themes that emerged were:

A. Sound in the Drama Room
B. Social Groupings in the Drama Class
C. The Effects of Space in the Drama Room
D. Teacher Influence/Decisions on Learning Styles

These interest areas were used for coding until new themes emerged within the broad framework of the above themes. Through the coding of my data, I found the following themes had the greatest influence upon the unfolding of natural learning styles upon my grade eight drama students:

A. The Effect of the Environment In the Drama Room on Learning Styles (Space, Lighting, Sound)
B. The Effect of the Psychological Elements in Drama on Learning Styles (Hemisphericity)

C. The Effect of Emotional Stimuli and Sociological Groupings in Learning Styles and Drama (Space and Sociological Groupings Persistence and Motivation)

The environmental and emotional/sociological themes were examined in the context of continuous happenings within the drama classroom routine throughout the research. In exploring learning styles and the psychological elements one particular class session was examined. The examination of this one class session also identified the routine framework of the drama class. The effect of the interactions of my teaching and the student learning styles is considered from events throughout the study.

However, before the themes are discussed it is important that a class profile of the individual students, according to the Dunn and Dunn survey, be observed. This profile will describe the preferred learning styles of the students in the drama class, according to the Dunn and Dunn Inventory. The profile presents the class members as individuals who will be referred to throughout the research material in this chapter. Although the Dunn and Dunn Inventory was administered twice, I used the findings from the first administration (early February), as this is the information I often referred to in considering drama activities for my students. Tables three and four illustrate the class profile percentage results. (also see Appendix F and G)

TABLE V - 1

LEARNING STYLE INVENTORY

TOTAL RESPONSES BY SUBSCALE FOR STANDARD SCORE **EQUAL TO OR GREATER THAN 60** (03-28-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP: 817

LSI AREA	SUBSCALE	RESPONSES	PERCENTAGE
NOISE LEVEL	1	4	17.39
LIGHT	2	1	4.35
TEMPERATURE	3	8	34.78
DESIGN	4	3	13.04
MOTIVATION	5	2	8.70
PERSISTENT	6	3	13.04
RESPONSIBLE	7	3	13.04
STRUCTURE	8	6	26.09
LEARNING ALONE/PEER	9	8	34.78
AUTHORITY PRESENT	10	3	13.04
LEARN SEVERAL WAYS	11	3	13.04
AUDITORY	12	3	13.04
VISUAL	13	2	8.70
TACTILE	14	5	21.74
KINESTHETIC	15	7	0.43
REQUIRES INTAKE	16	4	17.39
EVENING/MORNING	17	3	13.04
LATE MORNING	18	6	26.09
AFTERNOON	19	7	30.43
NEEDS MOBILITY	20	4	17.39
PARENT FIGURE MOTIV.	21	8	34.78
TEACHER MOTIVATED	22	0	00.00

TOTAL NUMBER OF STUDENTS: 23
TOAL RESPONSES: 93

TABLE V - 2

LEARNING STYLE INVENTORY

TOTAL RESPONSES BY SUBSCALE FOR STANDARD SCORE **EQUAL TO OR LESS THAN 40** (03-28-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO. 817

LSI AREA	SUBSCALE	RESPONSES	PERCENTAGE
NOISE LEVEL	1	4	17.39
LIGHT	2	5	21.74
TEMPERATURE	3	3	13.04
DESIGN	4	5	21.74
MOTIVATION	5	3	13.04
PERSISTENT	6	7	30.43
RESPONSIBLE	7	5	21.74
STRUCTURE	8	1	4.35
LEARNING ALONE/PEER	9	4	17.39
AUTHORITY PRESENT	10	4	17.39
LEARN SEVERAL WAYS	11	5	21.74
AUDITORY	12	1	4.35
VISUAL	13	6	26.09
TACTILE	14	4	17.39
KINESTHETIC	15	2	8.70
REQUIRES INTAKE	16	1	4.35
EVENING/MORNING	17	7	30.43
LATE MORNING	18	6	26.09
AFTERNOON	19	2	8.70
NEEDS MOBILITY	20	6	26.09
PARENT FIGURE MOTIV.	21	2	8.70
TEACHER MOTIVATED	22	5	21.74

TOTAL NUMBER OF STUDENTS: 23
TOTAL RESPONSES: 88

STUDENTS IN THE DRAMA CLASS: THE DUNN AND DUNN INVENTORY

These descriptions are the results of the Dunn and Dunn Learning Style Inventory administered in early February, 1988. The underlined material presents an extremely strong preference, as identified by Price, in the student's personal learning style. In the brackets ( ) following the formal descriptions, I have added some informal teacher observations about the individuals. This information was gathered from my continual work with and observation of the students. Because the Inventory results were direct and concrete, I chose to profile the students' in the present tense. My observations, more global and historical, are in the past tense. At the end of each description in [ ] are the four drama report card marks I assigned to the students throughout the year. The fifth mark assigned was the student's final drama mark. These descriptions also offer insights into my frame of reference as a teacher observing her students.

The Students

Karl: is a student who needs structure. He can work best during morning and early afternoon. Karl needs mobility with frequent breaks. Karl identifies himself as not persistent and not responsible. He needs teacher feedback. (When Karl was given a clear guideline or structure he began to emerge as a group leader. This information is important, because peer-teacher observers who came into the class could not believe this was the same attention-seeking, non-motivated fellow they had to put up with in other classes.) [66-56-62-63: 62]

Jodel: is a student who is persistent and needs clearly stated objectives with many choices of approach. Jodel is visually orientated and prefers to work in the early morning. She likes a desk or learning station where visually she can work by herself. Jodel is not parent-figure motivated. (Jodel would often sit on the sidelines, and she liked to be by herself when reflecting. Jodel had the poorest attendance in this class. Jodel liked her work to reflect the soul-searching she was going through.) [73-64-54-75: 67]

Danny: is a persistent student, preferring formal design and liking long term assignments. His best learning time is early/late morning. Danny prefers visual/multisensory information rather than tactile information. Danny needs his own desk and his own learning station. (Danny was seen by his peers as a popular group leader. As in Physical Education, many of the boys wanted to be on Danny's team. Many of the boys who viewed themselves as not good in drama wanted to be in Danny's groups. Danny was an organizer. He enjoyed learning information, and he preferred to have modelling or examples before entering into an activity.) [72-89-80-75: 80]

Micky: is a student who is parent-motivated. Micky responds best to multisensory input and prefers learning in the afternoon. (Micky was a student who could never settle down, he had to be everywhere at all times. Whenever possible, Micky would sit on a chair and if a chair was not immediately available he would borrow one as soon as others vacated their chair and then he drag his chair around with him. Through the research and tape recordings of the classes, I realized how much verbal disruption and noise Micky created. This was the way he would seek attention and not many would listen to him. His distractions would provoke difficulties for the students working with him. When Micky had to complete written material, he would not complete it, unless I put him in a specific working area and sat beside him. Often, I would draw an imaginary line around his working area, so he would know his boundaries. Micky, although a good oral reader, liked me to read the questions to him as he worked. Fortunately, I could create some opportunities to work with Micky. Micky commented about his role in group work - "It is not easy for me to work in a group, because we never get anything done.) [72-89-62-53: 69]

Tanice: is a persistent and responsible student who is also parent-figure motivated. She likes to work alone and does not like change. Tanice needs multisensory input. (Tanice liked her work in the drama class and appeared to enjoy the presence of individuals in her groups. However, Tanice's observable behaviors did not include initiative, motivation or persistence. In working with others, Tanice would seem to stand back from the group and wait for others to make decisions. When given an individual task, Tanice would often work on it at home, and then bring it fully prepared to class.) [52-56-58-70: 59]

Bryan: is a student who needs precise directions without any options. Bryan needs short assignments and although he likes to work alone he will work in various sociological groups with strong leaders. Bryan prefers cool areas and working in the evening. Bryan identifies himself as unmotivated. (Bryan, although preferring cool working areas always wore his jacket to drama class. If he was asked to take it off, he would easily comply and then when my back was turned he would slip it on. Bryan appeared quiet and usually tired. He was easily distracted by other students. Although Bryan appeared quiet, I began to learn from the tape recordings of my class, how often he quietly badgered and interrupted others. The work he liked best in drama was to perform as an acting secretary for me. He would copy down the group names into neat rows and enter them in my plan book. Then he would sit beside me as if he were my personal assistant.) [51-69-30-42: 50]

Cindy: is a student who needs a cool, quiet background,who likes to work in an informal design during the late afternoon and evening. Cindy works best through her auditory channels. (Cindy was a tall girl with both a sense of humor and organization. She enjoyed forming and leading a group.) [81-81-71-86: 80]

Sharon: is a student who likes to work alone in a cool quiet background during the afternoon. Sharon likes to avoid frequent and extensive change and feels she does not function best in the late morning. (Sharon was a very quiet girl, who did not often voice her ideas, but held strong opinions. Sharon was the student identified by her classmates, as the one who improved the most through the year - because she learned to speak up and not be shy. Sharon wrote about herself - "before, at the beginning of school I used to have major stage fright and I used to be embarrassed. But now, I'm not because I'm confident.") [50-68-71-85: 70]

Janie H: is a highly mobile student who likes a noisy environment with subdued lighting. Janie needs short term assignments while working with manipulative, tactile and three dimensional materials. Janie needs opportunities for real and active kinesthetic activities with frequent breaks, allowing for peer referencing. Janie is parent figure-motivated and works best firstly in the late morning and then in the evening. (Janie's favorite question to me was, "When are we going to do a play, with like, costumes and make-up, you know?" Her moods affected her work in each class. Janie liked to be first in sharing her work and she would always organize her group, whether they agreed with her or not. Janie needed the following sequential order of performing on stage: classroom lights off, music crescendoes, curtains open, stage lights rise and actors begin, actors perform, actors bow, curtains close. When this could not happen for Janie, she would often appear to be out of sync.) [70-80-71-62: 71]

Shaun: is a peer oriented student who learns through a variety of experiences and likes authority figures present. Shaun is highly mobile while needing short term assignments. He is parent figure motivated and needs food intake frequently and prefers a warm environment. (Shaun was the student who, when watching the film Mime Over Matter, for the second time, mimed all the actions along with the main character's actions in the film. Shaun was verbally spontaneous with ideas and sometimes with implementation.) [62-77-63-64: 67]

Roy: is a student with kinesthetic preferences, who likes a noisy environment. Roy needs short term assignments with personal choices and works best with a collegial adult. (Roy was a thoughtful student who could produce great work at times. When Roy liked a technique or activity he would do well with it. Other times he would be distracted by the noise and activity in the classroom.) [70-93-70-54: 72]

Chuck: is a student who prefers a noisy, warm, dimly lit environment. He needs short-term assignments and needs frequent food intake. (Chuck was a very quiet student who responded well to praise, yet, he appeared to be surprised, even startled, whenever he received praise. His individual work as in story telling and character sketches was always well organized.) [70-68-72-30: 60]

Joy: is a peer oriented student who prefers a noisy warm environmnet, yet she does not enjoy excessive movement. Joy is parent-figure motivated, and prefers working in the late morning/afternoon. (Joy appeared to be self-contained, in that she never appeared happy or sad. Yet, when she was inwardly troubled she withdrew from the activities and needed somebody to approach her to draw her into the activities.) [67-71-51-78: 68]

Gloria: is a student who needs clear directions and frequent praise in short term assignments. Gloria learns through a variety of ways with tactile/kinesthetic preferences, is peer oriented and wants an authority figure present. Gloria works best in the late morning. (Gloria was a happy girl, who liked to use props and she would often bring materials from home to help out her group.)
[73-76-71-81: 76]

Simon: is a student who likes a bright, warm environment in an informal design. Simon is peer oriented, unmotivated, needs multisensory input without excessive movement and he does not learn well in the late morning. (Simon, was a character who would often sit by himself and hum out loud. In choral speech work, his voice was always heard lagging behind. He was not physically coordinated, in fact he was awkward. His sense of humor was quietly different from the majority of the class - he would find certain actions to be humorous, leaving the rest of the class trying to figure out why he thought it was humorous.)
[60-57-58-59: 59]

Vincent. is a non-persistent student who needs frequent food intake in a cool environment. While Vincent needs choices of structure he also needs short term limited assignments that are tactile in nature. Vincent is peer-oriented. (Vincent was an interesting student who would really take to some activities and not be able to find a way in for other activities. Vincent worked extremely hard on his storytelling unit in mythology. He was boisterous in his energy and could be personally affronted when asked to practise self-discipline. Vincent's favorite activity was jumping off the stage, which of course was not allowed.) [50-72-58-66: 65]

Rhonda: is a student who likes quiet, warm environments and learns best in the late morning. Rhonda is not persistent or teacher-oriented but she is peer-oriented and prefers kinesthetic matters. (Rhonda had bright ideas, and was concerned when she found out her mother thought computer classes were more important and would not allow her to take drama in grade nine. She found this class a place to realize and act out her ideas with her peers.) [80-90-73-80: 81]

Julia: is a student who likes to work alone with an authority figure present especially during the evening in warm temperatures in an informal room design under subdued lighting. She has auditory and tactile preferences, needs mobility and is parent-figure motivated. Julia is not persistent and needs clearly stated objectives with many choices. (Julia was a quiet student who changed peer groups throughout the drama year. At first it was difficult to separate her from quiet Sharon, and then it became difficult to separate her from verbal and opinionated Janie. This indicated Julia's need and identification with strong attachments and peer support. She often let her working groups down by giggling and missing cues while sharing work.) [50-70-67-57: 61]

Evelyn: is a student who does not like excessive movement and does not work best in the late afternoon. Evelyn likes silent areas, with cool temperatures and subdued lighting in a formal room design with desk or learning station. Evelyn needs responsible peer help yet likes to work alone. She can handle multisensory input and does not need food intake. Evelyn is not parent-figure motivated, which means she does not learn in order to please her parents. Evelyn learns for herself. (Evelyn appeared to be a follower, but she always had her own ideas and reasons. She appeared to enjoy the activities in group work and she would exhibit a sense of humor in her individual work.) [78-79-71-80: 77]

Christen: is a student who likes subdued lighting in a cool environment. She is motivated and works well with authority figures present and she is parent-figure motivated. Christen works best in the afternoon, and prefers tactile/kinesthetic work while she does not like excessive movement. (Christen, a bright girl, really enjoyed the drama class, although she was always asking, "Why do we have to do this?" She was frustrated by those who could not comprehend her ideas. Christen liked to think about the reasons of why activities did or did not work. She often stayed after the bell to discuss her reflections upon the class activities. Christen enjoyed observing herself on video tape.) [74-86-77-86: 81]

William: is a student who is motivated yet not responsible. He needs structure and precise directions. He is peer oriented and parent-figure motivated. William can work from early morning through afternoon and he likes to learn through several ways with visual/kinesthetic preferences. (William was a student who liked to be responsible for carrying my tape recorder around to groups so I could record groups in action. William often called his class mates names and would strike out at them, then he would like to sit in the corner by himself. When William was not happy in the drama classroom he would tell me about his desire to be in computer class. William would often tell me he wanted to work with Danny because Danny knew how to do drama. Although not teacher-oriented, I found he worked best at my side.) [54-52-55-71: 58]

Dale: is a student who prefers to learn in quiet surrounding during the evening. He identifies himself as non-persistent. He prefers to receive information through multi-sensory modes and prefers to work independently. (Dale shared some personal stories with his classmates through drama. His peers were never as personal. When he realized or learned something new, it appeared to be an "ah ha" moment for him. He was at times talkative and often appeared to have a short attention span. In the spring, I was quite surprised to find out that Dale had been the source of many problems in his other subject areas. I had no inkling of this in the drama classroom.) [61-55-61-46: 56]

Nina: identified herself as non-motivated and independent. (I saw Nina as a follower who would rather not make decisions in drama class. She had quiet manners and never spoke out of turn. During the year I was surprised by her entry of a Chinese ballet dance into the school talent show. At that time, I also learned that she was a grade nine Royal Conservatory piano student, which is an accomplishment for any junior high student.) [75-66-68-73: 71]

With the above results, it was informative for me to regroup the student's learning style information. I created a reference chart which helped me quickly observe the student preferences in learning styles. Through this chart I could see which students had similar preferences, and which students preferences were in opposition to their peers. This reference chart became my teaching tool when considering drama activities and learning styles. The elements marked by an *, are rated by me as significant because according to the results of the Dunn and Dunn Inventory, the elements concern a minimum of seven students out of 23, and represented approximately one-third or more of the drama class. One other element which became significant for me, was the zero rating of the class under teacher motivation. In this instance, the entire class was not teacher motivated.

Student Preferences

NOISE
Janie
Chuck
Roy
Joy

QUIET
Sharon
Dale
Rhonda
Evelyn

LIGHT
Simon

DARK
Janie
Chuck
Julia
Evelyn
Christen

WARM *
Cindy
Shaun
Chuck
Joy
Simon
Rhonda
Julia
Christen

COOL
Bryan
Micky
Evelyn

FORMAL DESIGN
Danny
Evelyn
William

INFORMAL DESIGN
Cindy
Sharon
Simon
Julia
Christen

UNMOTIVATED
Bryan
Simon
Nina

MOTIVATED
Christen
William

PERSISTENT
Danny
Tanice
Jodel

NON PERSISTENT*
Janie
Sharon
Karl
Gloria
Dale
Vincent.
Rhonda

RESPONSIBLE
Tanice
Chuck
Christen

NOT RESPONSIBLE
Karl
Shaun.
Roy
Evelyn
William

NEEDS STRUCTURE
Karl
Bryan
Cindy
Gloria
Julia
William

DOES NOT NEED STRUCTURE
Jodel

PEERS*
Cindy
Shaun
Joy
Gloria
Simon
Victor
Rhonda
William

LEARNS ALONE
Tanice
Sharon
Julia
Evelyn

AUTHORITY
Shaun
Gloria
Christen

NON-AUTHORITY
Sharon
Janie
Roy
Julia

SEVERAL WAYS
Shaun
Gloria
William

MULTISENSORY
Micky
Tanice
Bryan
Sharon
Dale

AUDITORY
Cindy
Gloria
Julia

MULTISENSORY
Jodel

VISUAL
Joy
William

MULTISENSORY
Jodel
Danny
Micky
Cindy
Simon
Julia

TACTILE/MANIPULATIVE
Janie
Joy
Gloria
Victor
Christen

MULTISENSORY
Danny
Micky
Dale
Evelyn

KINESTHETIC*
Janie
Roy
Gloria
Rhonda
Julia
Christen
William

OTHER
Nina
Evelyn

INTAKE
Janie
Shaun
Chuck
Victor

NEEDS NOTHING
Evelyn

EARLY MORNING
Jodel
Danny
William

EVENING*
Bryan
Cindy
Janie
Dale
Julia
Joy
Christen

LATE MORNING
Karl
Danny
Joy.
Gloria
Rhonda
William

OTHER
Sharon
Janie
Simon
Rhonda
Julia
Christen

AFTERNOON*
Karl
Micky
Cindy
Sharon
Joy
Christen
William

OTHER
Simon
Evelyn

NEEDS MOBILITY
Karl
Janie
Shaun

STILL
Joy
Danny
Simon
Evelyn
Christen

PARENT FIGURE*
Micky
Tanice
Janie
Shaun
Joy
Julia
Christen
William

INDEPENDENT
Jodel
Evelyn

TEACHER MOTIVATED*
None

INDEPENDENT
Bryan
Simon
Nina
Dale
Julia

Through this chart, as identified by the *, we can observe the stimuli which affect, to the highest degree, the student body of the drama class. The stimuli represent those who prefer: a warm environment, to see themselves as non-persistent, working with their peers, working through multisensory modes and kinesthetic types of activities, working in the late afternoon and the evening, parent-figure motivation.

Class Profile

To create a descriptive class profile, I used the percentage totals of 30% or greater than 30% as indicated on the two class profile read-outs from Price Systems. (Table 2) For both class profile responses, (learning style subscale scores above 60 and below 40) the 30% were the highest ranking group subscales. Therefore, for significance with regard to this drama class, I chose to recognize those subscales scoring equal to or greater than 30%.

The 8-3 drama class of Morningside Junior High was unique because of its preferences. As a class, factors which influenced learning style preferences were the: need for a warm temperature, preferences for working and learning in the early morning and afternoon, opportunities of working with peers , and the need for kinesthetic activities and equally so, the need for mobility. Students were highly parent-figure motivated, while the class as a **whole** was totally **not** teacher motivated. In other words, the students did not work in order to please or satisfy the teacher. The class did not see themselves as persistent.

In order to understand my research class fully, I also tested my other two grade eight drama classes. Again, using the criteria of choosing a 30% significance, I did so with the other two grade eight classes. The information I used from these Inventories allowed me to draw comparisons. The purpose of illustrating these other class profiles simply helps to demonstrate the uniqueness of the research group.

The class profile of Drama class 8-1 identifies the group as:

-preferring bright light,
-preferring a warm temperature,
-needing an informal structure,
-preferring a quiet working surrounding,
-highly visual,
-tactile,
-and preferring to learn in the afternoon.

The class profile of Drama class 8-2 identifies the group as:

-preferring a warm temperature,
-not preferring to learn in evening/morning,
-and non teacher motivated.

When comparing and contrasting the data of the three classes, I found that another study could be pursued in comparing and exploring the individual nature of each drama classes according to learning styles. One statistic in common with the three grade eight drama classes is the preference for a warm temperature while learning. I found that the drama 8-3 class is unique in it's degree of being:

-non-teacher motivated
-non-persistent
-and personally non-motivated

Now that we have met the research student group, and compared them to other student groups, it is important to see how the students reacted to the learning style elements within the dramatic context. I will explore this through the words of the students, the words of myself as researcher, and the words of the knowledgeable observers.

Meeting the Knowledgeable Observers

Before we move further, I will also introduce the knowledgeable observers. The dates within the brackets identify the number of classes and the days each informant observed a drama class. Throughout the study, I refer to myself as MFF.

MFF	Drama teacher at Morningside School (January 29 through February 19)
Elsie	Physical Education teacher at Morningside School (March 2)
Russ	Language Arts teacher at Morningside School (March 22, April 7)
Diane	Guidance Counsellor at Morningside School (April 27)
Brenda	Principal at Morningside School (April 5)
Frank	Vice Principal at Morningside School (May 19)
Julianna	Drama Consultant (March 8, 15, 17, and May 4)

Joanne	Learning Style and Social Studies Consultant (April 19 and 21)
Jim	Doctoral Student in Drama (April 25)
Petra	Student Teacher in Drama (May 6)

THE ENVIRONMENTAL ELEMENTS

According to Dunn and Dunn, the stimuli which affect the environmental elements of learning style are noise level, temperature, light and design. Upon entering my drama room two of these stimuli, design and light, run contrary to the average picture of the regular, desks in rows, classroom setting. I will look at the classroom design and observe the lighting within that design. I will also explore the effects of both upon the students. The elements of sound will also be discussed in detail.

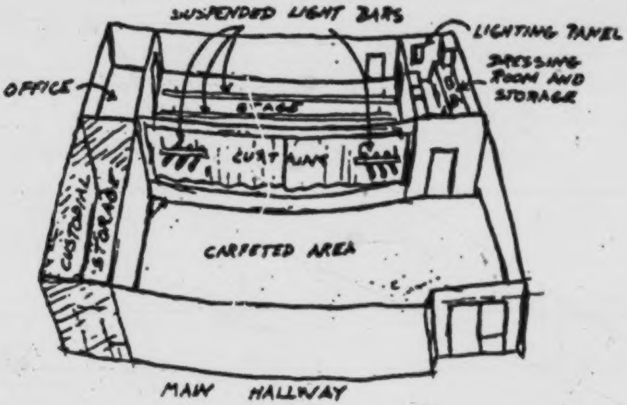
First Impressions - A Comment upon Design

The first time I entered my drama room (June, 1988), I was aware of the impression of "space". Perhaps this is something similar to most drama spaces as it is also recorded by Craig's (1984) informant in her investigation of a first year junior high drama teacher and her environment, "The first word I sense is "space". (45) What I saw under the fluorescent lights in my new drama space was the scuffed pale yellow walls, thinning orange carpet, and the raised, empty stage area. There was not one picture on a wall. One piece of furniture, a marked up wooden bench stood on the stage beside the stage right black wall. At the back of the stage were a few folded, scuffed black flats leaning against the upstage wall. To me, the room felt used and tired. I tried to imagine myself bringing life into this environment. I could not create a mental picture. I, then, tried to imagine junior high students bringing life into this environment. Again, I could not imagine the picture.

As the year progressed and this research began, I could not rid myself of those first impressions of the drama space. Although students entered the drama area and we worked within the space, I could not find or create the intimacy with the students within this environment that I had been used to with my other drama classes in other schools. I wondered, if I felt like that, how did the students feel in the room? As our research progressed and I began to explore, work with and adapt the lighting, space and environment in the classroom, I eventually changed my first impressions and grew to feel comfortable working with the students in the drama space. In fact, it was with this particular grade eight class, that I first recognized as a teacher, the need for that team effort or collective group focus often called "working together".

Drama Studio Design

The drama studio area is a self-contained space. Upon entering the only door in the far left of the classroom, the space is a carpeted and empty, double wide classroom. The Physical Education teacher noted, "The design of the room is for mobility." Beside this open classroom area is a raised hardwood stage, three feet high, with fake proscenium arch walls on either side which house velvet-red heavy cloth curtains. The stage walls are all painted flat black. The upstage back wall is a non-sound-proofed divider to the gymnasium. The upstage left and right walls have doors. The upstage right door opens to the teacher's office and storage area, while the upstage left door opens to the costume room. The costume room houses the lighting panel behind the upstage left door, and adjacent to that wall are two sinks, a wall of mirrors and fluorescent lighting shades. Opposite this wall are the six foot high cupboards where a few costumes are stored. On top of the costume cupboard is an empty space to the ceiling where old unusable spotlight shells have been stored for years. The classroom to the left of us is the computer classroom, and to the right of us is the janitor storage area and school store. On the wall separating the school store is a four foot open, grilled ventilation space, which allows the sound to enter and exit our drama space.



The classroom, stage area and costume room were well used areas with this drama class. Each class began with circle time in the centre of the drama room. In this position, the students were told the objectives for the day. Warm-up exercises were mostly done on the carpeted floor. During rehearsals, group work and planning sessions - unless in parallel play/action - the students would divide themselves into working areas. In the class we would call them our working areas. The working areas became isolated areas on the carpeted surface, the costume room, and the stage - with the stage being divided in half by six foot black flats. As the school year and the research progressed, the student groups seemed to want to be isolated from one another while planning or rehearsing a project. There was always a demand for the stage, with shouts of, "Can we have the stage?" and "We asked first." Next in demand was the costume room with the same comments, "Can we have the costume room?" and "We asked before them." The students were always quick to remind me if one group was "hogging" an area, with comments like, "They always work there." or, "Why can't we work there?" Because the group members were always varied, it was difficult to satisfy all the students in matters of working areas.

One observer noted:

> "It was really interesting, I thought you had allowed them to choose their own space... like you didn't tell them where to go in the room to work, and it seemed that the groups just knew where to go... I just wondered though, because they all seemed to want to be right on that stage." (Interview with Diane)

Lighting in the Drama Room

The space in the drama studio is greatly affected by the lighting arrangements. The overhead fluorescent lighting above the classroom area is controlled by one light switch near the door. When the switch is turned on, all of the classroom lights light up. Tubes, for various reasons, had not been taken out to soften the lighting and take away the yellow color which pervaded the room, being reflected by the pale yellow walls and the orange carpet. In front of the stage is one lighting bar, with six spotlights focused on the stage - three focused on down centre right and the other three on down centre left. Behind the curtains is another lighting bar, with eight working spotlights focused down and centre stage. In the costume room is another light switch which turns on the fluorescent stage work lights. The costume room has two light switches - one for the overhead fluorescent lights and one for the makeup lights. Early in the research one spotlight stand was found, and from this two fresnel spots were hung, which could focus light anywhere in the drama studio.

It was the addition of this spotlight stand which created differences in the nature of the drama environment within our classroom. Prior to this, I had been fighting the effects of the bright lighting during our floor work. As said by the main informant in Craig's study, I was "fighting the room in order to make of it a dwelling, in order to make of it a home, where unfolding of the students could be a reality." (Craig, 1984, 110) The simple addition of these two spotlights on the stand, helped me create the drama environment within which I was more comfortable. Upon reflection, I wondered why I had not identified the lighting as a problem in my teacher comfort areas or teaching style. These two spotlights were usually the only lights that would be left on during class changes, so when the door was open to the drama classroom, observers would glance in upon the different lighting of a classroom. Also, for students entering the drama class, it immediately signalled a difference in space and environment. I would overhear students say, "Can't we turn on the big lights?" while others would say, "I can't think with the lights on."

The use of the lights signalled many things. At the beginning of the research, the classroom lights were on full when floor work, such as circle time, warm-ups, parallel play and rehearsal were being done. If the lights were switched on and off during these times, it would mean that either I or one of the students were asking the class for attention. When students were seated together in audience position in front of the stage, the classroom lights would turn off which would signal those on stage, under the work lights or spotlights, to share their work with us. This cue would also signal the audience to illustrate appropriate audience behavior in focusing attention. If we were going to be formal by inviting in an audience, the curtains would open onto a stage lighted by the spotlights while all other lights were off.

When the fresnel stand came into the classroom, the classroom lights rarely came on during class time. These spot- lights added a subdued lighting and they could be focused at different areas in the classroom. When more light was needed for various activities, the working stage lights and spotlights were turned on in combination with the lights on the stand. Students would then move to the areas where the lighting was amplified.

How the Combination of Design and Lighting Affected Learning Styles.

When students were asked the question what makes drama different from other classes their answers reflected upon the differences of the environmental elements in the drama room. Christen responded, "You get to act and do more real life things instead of just sitting in desks and doing paper work...You can move around." Roy added, "Yep, it gives you time to relax, instead of being cooped up and to just to spread out." Chuck offered similar ideas with, "I have the same opinions, like instead of working in desks all day, its fun, because you get to act and move around." When one student was asked if she were comfortable in drama, she responded with, "it's better than being in a classroom." One young boy commented, "it's a lot more relaxed. There is more room to set up your props. It is easier to move around, things are not cramped in one spot." When asked if we we should add desks desks into in the drama room the same young fellow answered, "It would be terrible. You wouldn't be able to move." These students liked the open space of the drama room, without the desks and furniture in it. Desks, to them, meant a formal classroom design, which the drama room was not.

One observer commented on the effect lighting had on the room design and classroom environment by stating:

> "The carpeted floor is good and it's comfortable. I think the students are relaxed in that environment. They have confidence in it. I noticed, when you had the lights on, let's say, you have got so many bits of input, either posters, or student generated work on the walls..well, with the lights down, and the floor comfortable like that, all that seems to dissolve, and they seem to be able to work right on the task that is in front of them." (Interview with Russ)

Looking at design, another observer focused on how the students came to circle time at the beginning of the drama class:

> "I found that they could work, there are various levels of furniture, some can sit and some can recline, but at the same time they can still be in the circle, so that the design of the circle is still there. There were various levels and a lot of freedom for them to choose their own level while listening." (Interview with Jim)

Prior to the addition of the lights, and early in the research one observer noted:

> "There is no quiet spot in the room, except for if you want, the stage area. Do they need a quiet spot?...I didn't see the need for the students to go off on their own and sit in a corner with all the extraneous noise, but I think, the intrusion of the noises, I'm talking the school noises, might call for a quiet spot." (Interview with Julianna)

The observer's information and recognition of a problem was a clarification of a problem that I had previously been grappling with. She elaborated further:

> "I think with the design you've got the open area, rugged and square, and your stage is higher, and students wanting to practice without being seen, could

> go on the stage, so they have that choice. If they close the curtains, they need that closed environment. They seem to need that...You have lots of walls indicating things are happening, so its user friendly, I have thought though, the large open space works against your intimate discussions. It is such a big space, it is like having a nice intimate discussion in the gym and you have to keep working against that by focusing them, particularly when you are doing your discussions. I think the space diffuses the energy." (Interview with Julianna)

I, too, had thought that the space diffused the energy. To pull the energy together and create an intimacy among the class, the observer then suggested:

> "I might try bringing the flats down and having an enclosed space for your grade eights...Do you have benches? I wouldn't have them in chairs because they are too far apart...I have suggested to teachers that they assign students spots to sit on, on the floor, in a circle to create the enclosed space." (Interview with Julianna)

Soon after this, the spotlight stand was put into working order. The added input of the fresnels on the light stand did make a difference to the students as noted by one observer:

> "They are used to the open space though, because they asked to open the lights for the group work. So they were used to it." (Interview with Joanne)

My response to that was:

> "There is always one student in this class who will go and turn on the lights. They will ask, "Do we have to work in the dark?', or, "Can we work in the spotlight?"...The lights have made a difference. Bryan was the one who would most often go and turn on the lights, he was not comfortable with the lights off - or maybe not comfortable with the school environment being so changed, that he didn't know what to do." (MFF)

This action of Bryan's was also peculiar because he had not established the lighting element as a strong preference. Perhaps with the opportunity of working in an environment with subdued lighting, he learned that brighter lighting was a personal learning style preference. Also, there was only one student who identified bright light as a preferred stimuli, that was Simon - although he seemed to blend into the darkest shadows of the drama class.

The student teacher (who was there when there were no fresnel spotlights) noted a change created by the lighting:

> "Coming back is so interesting, to walk into this place, to see the way you have worked with the lights, and that the lights are different now.....the lights are variable and we can work with them however we choose...There is room for growth." (Interview with Petra)

Observers, not knowing that there had been a change in the classroom lighting, always commented on the lighting. One observer noted, "The lighting, is obviously very soothing. It increased the personal space for each group." Another observer, a peer Language Arts teacher said:

> "The light, I like the way the light is focused when the kids come into the beginning of the class - whether it is subdued or focused from one source like that." (Interview with Russ)

The guidance counsellor observed:

> "There is a lot of open space. There are also sectioned off areas, so if someone wanted to go and work without being observed or being influenced by anyone else, they've got that opportunity." (Interview with Diane)

The students enjoyed the freedom to work in different areas within the drama studio. The lighting created little mini-environments which became working areas. Student groups seemed to prefer certain areas, however, the areas were either lighted and sectioned off, or in the darker areas of the room.

Some students definitely preferred specific working areas. Janie always wanted to work on the stage, with the spotlights on and the curtains drawn. Danny preferred to work on the stage, but would willingly move to the costume room or the back area of the stage sectioned off by the flats. Rhonda always worked in the dark area on the floor by the door. Christen needed a corner to work in. These students were often group leaders and the people they worked with would gladly go where their leader chose. When students would first begin a project, they would clump into little circles within their area, then as they began to need space they would move freely within those areas. I found that when a drama group did not clump together in tight little circles at the beginning of their task, the group was not cohesive and the group could not naturally or easily find a focus. These groups would ask for my assistance, whereas the groups in tight little circles would tell me to come back later when they had finished their planning. Somehow, the invisible boundaries were respected by each working group.

SOUNDS AND LEARNING STYLE ENVIRONMENT IN THE DRAMA CLASS

Similar to the use of space and the effects of lighting, the freedom to make sound and use sound in the drama classroom is quite different from the sounds heard in the conventional classroom. Therefore, it is not surprising that the one factor considerably noted by each observer was that of sound. The word 'sound' meant many things to these observers - outside sounds which penetrated the drama room, student sounds, teacher sounds, sounds of music, sounds created in the mechanics required to use the drama facility, and sound produced by all factors synthesized together.

In the case of Dunn and Dunn, sound simply means that some students prefer to work with surrounding noise, while others block out that noise, and still others needed silence in which to work. Four students identified their preferences of working with sound surrounding them, while another four identified the need for quiet working surroundings. Dunn and Dunn have also considered the modality influences of the auditory, visual, tactile and kinesthetic channels of receiving information. In connection to sound in learning styles, I was concerned with the auditory mode of learning. Three females preferred learning through auditory channels. These three females who preferred learning through their auditory channels did not identify a preference for quiet or noisy learning environments.

Sound As A Distractor

In our drama classes we were usually noisy while we were working and quiet when we were observing one another. However, the noise was not always student noise that contributed to the sound factor. One of the first observers made this comment,

> "One thing I noticed with sound, was the fan during the silence, which I hadn't hear before, which hasn't seemed to interrupt your class really, but I noticed it. Have you noticed it?" (Interview with Julianna)

I responded with,

> "Yes, I hear it in a silent moment, but do you hear that noise right there? (pointing to the open grid work four foot square just in front of the stage right curtain rod.) The school store is next to us and they usually start making noise about quarter to, just when my class begins to share their work (the last twelve minutes of my class). Some days they have the radio on." (MFF)

In another interview, the same observer noted:

> "I do feel however, that the intrusion of noises, I'm talking about the school noises, the door, the intercom, I think they interrupt the kids' concentration and focus, so you have to keep trying to bring them back. I think the school sounds work against you, you keep having to focus them." I think they are very sensitive to those sounds."(Interview with Julianna)

My response to that observation is just one example of why an outside knowledgeable observer should be brought in to help in teachers researching their own classes:

> "This is so important to me, you see, I'm so used to those sounds now and that natural refocusing, that I forgot about that." (MFF)

During February the piano was in the drama classroom for lunch hour Melodrama rehearsals. The piano and the noise it would make, was a tempting distractor for the students as I pointed out to the observer:

> "I really noticed the piano's a great distraction and its just in here for the Melodrama. We usually take it out of the classroom because it is such a distraction, but today it just wasn't taken out. Anytime they have something unfamiliar in the class it's a distraction." (MFF)

The observer responded with comments about noise as a distractor:

> "They have a difficult time refocusing from their personal state to a class or lesson focus - whatever it is, whatever is really important to them- .it wasn't you. It had nothing to do with you." (Interview with Joanne)

These sounds as distractors also interfered with creating the classroom intimacy and group focus. As I began to recognize the sound distractors, I began to eliminate them. I asked that only in an emergency, would the office feel free to buzz on the classroom intercom. At a staff meeting, I suggested that the announcements over the school intercom should be made only at certain times and not randomly throughout the day. This was recognized by others as an interference and the suggestion was followed through. I asked, and kept asking, the gym teachers and gym students not to use the non-soundproofed gym/drama wall as a backboard. In fact, when the gym students became too noisy, my drama students in the class would frown and pointedly ask me if they could go and ask the gym people to be quiet, please. When students passing in the hallways would interrupt the drama class by knocking on the door to visit with friends in the class, I became very firm and efficient in dealing with the passing students by calling the office and letting them know the students were wandering the halls and interfering with our class. These outside distractors began to diminish, and my need for continual refocusing was not such an effort. At this point, the new lighting stand was also introduced into our drama studio. The students began to work uninterrupted by outside noise factors. The use of the new lighting also had a calming effect upon the students. Together, without interruptions, my students and I became more at ease within the drama room. Together, through sound, lighting and space, we worked to create a more comfortable working environment conducive to their learning style needs within the drama classroom.

This ease within the drama classroom was a combination of many factors. If I had not been studying and researching learning styles, perhaps I would not have been aware of, or able to recognize the distractors within the classroom. As my observers began to comment upon noise, light and space factors I began to see what was occurring through the eyes of other experienced educators. As a teacher I could act upon the comments made by the observers, by accepting, recognizing or ignoring them. As a researcher, I had to understand theoretically what effects these situations were having upon the students. In trying to understand what was occurring, I had to observe and listen to my students with a keen and rigorous ear. The research, my search for ambience in the classroom, and my work with students allowed for positive change or redirection in ways natural to drama.

The Use of Music

In drama, music is often used to enhance or create a mood. In my Drama class, before the bell which signals the beginning of the period, I will have the tape recorder playing music as students enter the classroom. Mostly the pre-class music is appropriate to what we may be studying, such as silent movie music for melodrama, tongue twister recordings for speech, children's songs for story telling. Using the music this way helps to set the mood for the class. However some days, the music may be used to reflect the mood of the school or my own mood, or it may be used as an attention-getting device through using variations in sound levels. Music is also used, most often, during warm-ups or while group work is in progress. Also, as a part of a technical theatre unit and to establish mood, we sometimes add music to the beginnings and endings of our scenes.

The pre-class music does have an effect upon the students. This is illustrated by the following incident. In early May my students and I were in the initial stages of a story theatre unit, so the pre-class music I chose was either children's songs or nursery rhymes. One morning I had on the nursery rhymes tape and there was some Native dance music with a strong drum beat. The lyrics to the music were, "Hy ya na na na, Hy ya na na na." Micky, a boisterous young fellow, bounded into the room up onto centre stage and began to dance in Pow Wow style. Other students entered and joined him. It was a spontaneous and joyful moment to watch before class. The next class, two days later, Micky came early to class and asked, "Can you put on the Indian Music again?"

The Language Arts teacher observed:

> "The musical background during the exercise itself, where the groups, or the individual groups were working was evocative, and served as the frame work for the energy. I doubt if the students, if you ask them, could recall specifically what was being played or anything like that. But it gave a background, to each group to work cohesively, and that background tends to isolate the one group from the other groups there, so I think it's good, you know, that it gives them background. It stops some of the interference." (Interview with Russ)

The Drama Consultant also noted:

> "When you used the music you created a blanket of sound. I mean, they shut the world out by listening to music and that's what they will do when you are playing the music." (Interview with Julianna)

The Students and Sound

One of the most obvious sounds in the drama room is that of the student generated noise. As one observer noted:

> "Sound in the classroom equals the sound of group one plus the sound of group B plus the sound of group C plus the sound of group D, and all of them together...There is a lot of sound in this room at all times, my question is how each of these students perceives the noise around them [sic] as they work with their [suc] own noises locked out?" (Interview with Jim)

As a teacher, I did not realize how much sound there was in the class, until I had tape recorded my first class in January for research purposes. Our class was on a Friday, and I listened to my first tape as I worked in my kitchen that evening. As a teacher, I went through many emotions as I listened to the tape. I learned from this experience. Firstly, I recognized that my voice sounded continually strained when trying to capture the group's attention. I immediately realized how much energy I was using trying to overcome their noise with my voice. I knew I needed to change that quickly. Secondly, I noticed, once capturing their attention, there was still noise, with coughs, shuffling, paper, verbal asides. It was as though there was a current in the air that could not be turned off. Thirdly, I could recognize a working noise once the students had entered into their activities. Yet, while the class was working, there were students, who, being off task or seeking attention, would create extraneous noise which bothered me as a teacher, but it did not seem to interrupt the working groups.

When I met with the students the following Tuesday, I told them what I had discovered, and how I felt listening to the tape. As I often do, I asked them to help me solve our problem. The students were silent as I was talking. As I spoke I used a normal conversational tone:

> "One thing I observed as I was listening to the tape, while peeling my potatoes, is that often times when I speak, there are other people talking. Sometimes that is acceptable. Now, when I am trying to get an important message across maybe we need some kind of a signal, so that when I talk you might listen."

Some of the comments revealed student personalities. Roy mumbled so I could not hear him, "Put up your hand." When I asked Roy what he had said, Karl spoke for him, "Why don't you put up your hand?"

I responded, "So Roy says if I raise my hand then everybody will listen - should that be the cue then? In drama terms, the cue."

At this point the comments somewhat unfocused started to come forth, "Micky, shut up." Janie stated her idea to the class, and then to me. "If you put up your hand we will all be doing our work so we won't see you."

Confirming this I said, "Janie has a good point."

Micky asked, "Why don't you just yell at us to be quiet?"

Janie continued, "So, if you put up you hand and said something unusual that might work."

So I tried, just after I asked Micky and Bryan if they needed to be separated so they would stop poking one another, "Attention, maintenant, s'il vous plais."

Responses were: "Shhhhhh." "Ya, whadya say?" "Pardon me?"

After this, they settled down to listen to the directions and questions concerning their activities for the day. Throughout the class, I tried various techniques without much success. In fact, they continued as they had before.

One observer summed it up easily with the comment, "They are a great social class." The guidance counsellor commented:

> "They seemed to be able to work well with a lot of noise. They seemed able to handle all of the other things that were going on in the classroom, like the noise level...I would say they were able to, because they weren't telling other groups to be quiet. I don't know if they just sort of raised their own level to accommodate that, or what." (Interview with Diane)

One former drama teacher and learning styles consultant noted about the class:

> "They're really talkative. Actually, what I observed with this group, is they're very good when someone's on stage, there is absolute silence, they are an excellent audience...I noted how silent they were when they watched each other, I thought~~, that's~~ unusual because they are supposed to be silent when

> you're giving instructions too, and yet they're not." (Interview with Joanne)

Her descriptions of the happenings in the class she observed, bring to life the idea of energetic noise in this drama class:

> "Nice music to bring them down when they come into the class... This incredibly energetic group of kids who were all sort of really trying to establish themselves in a kind of personal way, and that kind of interaction, energetic interaction, it was really fun to watch..... The sounds that you used to get their attention, the hand clapping, raising the voice, or your Shhh....The other thing is the creative process. Once they get working in their groups it took them a long time to settle down and be silent, but it was a different kind of settling down, than when they first came in, when they first came in they were anxious to interact with each other. The noise in the circle at the beginning of the class was more resistance to wanting to stop. Once they were involved, creatively with their planning, once they did settle down, they were quieter and worked more readily through the lesson." (Interview with Joanne)

Upon returning to my classroom and prior to her second observation, this consultant discussed some reflections with me. She talked to me about her view of the student perceptions of how they used sound, as in verbal development.

> "In thinking about particularly the problem, (referring to the class experimenting with theatre sports improvisation games from the last lesson), it seemed to be with auditory responses, having them listen. For example, in the scene with the little girl at the hairdressers, the punk rocker, in the interview she didn't have anything to say in it. She talked about her hair and you even snapped (your fingers) a couple of times to let them know to pick up the pace there. So they probably spent more time thinking about how it looked and trying to impress each other with the visual, than they did thinking about it. I also noted that the kids who were doing sound were having problems

> with it. It was taking them a lot longer to be successful and trying to rehearse it, trying to do an auditorial improvisation. ... .It struck me as something I noticed about the group, was this whole auditory response, that they tuned it out so much, and yet they were so positive and I felt perceived themselves as working very hard and very positively in the drama class."

In observing the students using voice for attention, she added:

> "I guess the thing that was most striking for me, was that kids try to seek attention auditorily. Here they are not successful, without exception, nobody, not one kid responded whenever anyone, and they would, [sic] tried to seek attention auditorily." (Interview with Joanne)

She responded further, with a comment that seems to be universal among junior high teachers in this school:

> "I'm curious to know whether that is a true learning strength or deficit, or if its simply a condition of schooling that they become so atuned to tuning out that they just don't listen any longer." (Interview with Joanne)

Upon reflection, I remembered the incident when Micky began his Pow Wow dance and the others joined in. I remembered how he asked for it again the next day. Micky had listened and had naturally moved with the music. The opportunity to listen was there for the students and they chose to listen.

The Students and The Lack of Sound

The student teacher, returning as an observer in the spring observed the students as they were 'taking a break' by watching a video, The Making of Michael Jackson's Thriller. We needed to take a break because our drama room having stage access to the gym was also being used in preparation for a visiting symphonic troupe. We moved the video unit into a darkened corner opposite the gym noise. The student teacher observed Danny focusing the group's attention to the film, "Shush, I haven't seen this yet, I haven't seen this." He was getting very frustrated and so he shushed everybody until they were quiet.

Petra commented about her observations of the students while they were watching the film,

> "There were a couple of points, where there was absolute mesmerization by the entire audience of students, on the screen. One of them was when there was no sound in the video, there was the choreographed graveyard scene, and there was only the shuffle of feet and clapping hands, everyone was absolutely fixed." (Interview with Petra)

It was the lack of sound which caught their attention. This is a very important point, because each observer who saw the students sharing their work on stage would note especially how quiet the students would be when watching the other students' class work. "They were an excellent audience, silent audience, they were very well behaved today", or, "They are very good when someone's on stage, they are absolutely silent, they are an excellent audience." Such comments illuminated the students keen interest in observing, or learning through visual channels. Interestingly enough, only two students had indicated that visual information was a preferred learning style. The Language Arts teacher, Russ, commented, "Their audience behavior was courteous because they were curious. I think their curiosity is the key thing to that." I agreed with this observation, and it made me reflect upon student motivation. What was it that motivated the students to work in drama class? Was it the opportunity to share their work and be seen and heard by their peers that motivated the students? One student, Christen, commented when asked the question, "What do we learn from acting with others?" with, "We learn to project our voice. We learn to listen."

LEARNING STYLES AND THE PSYCHOLOGICAL ELEMENTS

The Psychological Elements

The psychological elements of learning style are important to the theories of Dunn and Dunn and of Kathleen Butler. In the Dunn and Dunn Inventory the three stimuli affecting the psychological elements were global versus analytical, hemispheric preferences, and impulsivity versus reflectivity. In the Butler model the four levels of mediation through learning style, and according to the Gregorc categories are concrete random, concrete sequential, abstract random and abstract sequential. Students unreflectively use one mediation style but are often asked to mediate through other channels. As one student said, "usually in math class all you're thinking about is numbers, and here you're thinking about everything around you and stuff."

To examine how students naturally use learning style and the psychological stimuli, I will explore one particular Drama 8-3 class and the activities within that class period. Prior to this examination, however, I would like like to explore an interesting result from an informal survey in hemisphericity which I conducted with my research group.

Your Style of Learning and Thinking

When I began observing and recording information about my students in January, I was trying to understand the students learning styles according to Butler's qualitative Teacher Observation Instrument: A Learning Style Communicator. (appendix D) I found I was encountering difficulty identifying students' individual learning styles because I was realizing that I did not really know my students. Drama activities were not the typical desk learning activities of which the students had familiarity. It was also difficult, because of the nature of drama. Although there are certain routines within my drama classroom the dramatic activities could not consistently allow for patterns and repetitive student behaviors. For example, in one class warm-up we could vary student partners in pair work up to ten times. Therefore, the interaction would change with each new partner. I could not make assumptions about the students' learning styles from the variety of drama activities we had pursued, because it would change the meaning of the Butler Inventory. The time factor was a constraint. I was only seeing the students for forty minutes every second day and the activities we did changed in form so that what I was observing in my students did not allow for consistency. While waiting for the Dunn and Dunn Inventories to arrive, I decided to administer Paul Torrance's Your Style Of Learning And Thinking with the students. I had used this Instrument in a Senior High Study to determine and compare hemisphericity in senior high drama students and other school populations, so I was familiar with the Inventory.

The Inventory is geared to the Senior High student and not the Junior High student. Some of the language needed to be explained to the junior high students as it did with the senior high students. Informally, we wrote this Inventory in the drama room, with the lights low and students were allowed to sit anywhere they chose. Some students worked in pairs and asked each other what they thought the meanings of some questions were. I circulated throughout the room speaking to each student checking for understanding. The students enjoyed this self evaluative Inventory and worked quietly and seriously on it.

Quiet discussions between the students illustrated their need for self confirmation and evaluation. The following conversation is an example of how one student recognized and personally understood and element of learning style:

Dale: Is this based on me? Well how can you get marked on this?
MFF: It's just based on you! Your answers are all correct.
Dale: You could mark all of your answers in one column.

Karl: Yes, you could.
Dale: It says, not good at body language. That's me!
Karl: Yes you are. (sitting on a bench close to Dale)
Dale: Well yes I am good at body language. (Dave gets up from lying down on bench and walks aggressively to SL. and back) I just had to get that off my chest. See, I am good at body language.
(Journal, February 29)

I felt that this conversation was the beginning of Dale's understanding of self-assessment. Dale was not stereotyping himself: he was recognizing himself.

The Inventory is a 50 question self report checklist of answers A, B and C. Questions were fashioned in this manner:

I remember A. Names
B. Faces
C. Both names and faces
(see Appendix F)

Scores could range from -25 through +25. Scores on the minus side indicate left brain preferences while scores on the positive side indicate right brain preferences. Of the 23 students tested Micky scored +14 and Bryan scored +7.5. These students were classified as right brain thinkers. One student, William, scored -11 which indicates a strong left brain preference. (He sat solo on a chair in a semi-lit corner and was finished first.) The remainder of the class, except for Ronda at +4, scored between -2 and +2. This meant that 82% of this research group was considered to be whole brained, neither left brained nor right brained.

This result was quite amazing. In order to understand what the results meant, I compared my findings with some of the statistics I had compiled in the previous senior high study I had done. In my grade ten drama class, the closest class to grade eight, one female student scored a -7, while the remainder of the students scored above +2. This meant that the grade ten drama class, except for one student, had right brain tendencies. My grade eleven and twelve drama students were all totally right brained thinkers. Considering this, I arrived at some questions regarding my research group results:

1. If the majority of the grade eight students were whole-brained, did it mean that their thinking styles were just being shaped?
2. Were the students just beginning to understand themselves as learners? Could the students truly identify their learning style or preferences?
3. How could styles of thinking/learning change so much in two years - from grade eight to grade ten?
4. What would be the results and comparisons of other grade eight drama groups?
5. Why did students choose a drama option in junior high? In my senior high experience, a certain thinking style/preference appeared to be an indicator.
6. Since I was of a right brain preference, how were my students relating to me?

I interpreted these findings in the following way. I believe that grade eight is a crucial year for adolescents in their exploration of self and others. Within my drama classes, the students were allowed to explore new forms of integrating, synthesizing, and sharing their learning experiences. Therefore, being unfamiliar with these forms of learning, students were just beginning to shape their new styles of thinking into learning styles and preferences. Students were just beginning to know themselves as learners and were beginning to understand the ways in which they thought.

I did not follow up this Inventory with a post check at the end of the research. I simply used this information to help me understand my grade eight drama students. However, I do believe the results warrant future research in the area.

A Stepping Stone: Learning Styles In Mythology

On February 11, Thursday morning, I handed over my grade eight class to Petra, my student teacher. This was Petra's day to be "in charge" and it was my day, in the role of "knowledgeable observer" to observe my class. Prior to this class, Petra and I had been team teaching the completion of our grade 8 Mythology unit. I had been offering Petra opportunities to step into the teacher role.

Petra's objective was to take the mythology unit and blend it with a story telling unit. The students were interested in watching me in my new role as detached observer and they were curious as to Petra's abilities in handling the class. Together, as class, teacher and student-teacher, we were moving in a new direction. This class was effective because the content appealed to the students and they enjoyed the activities.

In many ways, this class was a stepping stone to the future shaping of our drama classes. By my stepping into the role of "knowledgeable observer" I was able to:

1. understand the future experiences of my invited observers.
2. illustrate to my students that I was a researcher as well as a teacher.
3. pave the way for future observers entering my classroom.
4. examine the questionnaires and objectives in using knowledgeable observers in my study.
5. allow my student teacher and students an opportunity to create their own ambience.

I could now have the luxury to concentrate and reflect upon learning styles in mythology.

The Drama Class

In the subject areas which I teach, but especially in my drama classroom, I feel strongly that junior high drama students need an easily identified routine in what appears to be an unstructured setting. The unstructured setting is immediately identified as the students enter a classroom, sometimes carpeted, empty of desks and chairs, simply an open space. A routine helps them organize themselves in this space. This routine consists of the circle time introduction, warm-up, dramatic activity and conclusion or sharing time. This routine is the framework or structure of my class. I compare the routine to choreography, with each element in the routine being a dance step which can be shortened or lengthened depending upon the nature or beat of the music; in this case, the nature of the dramatic activity and the mood of the drama students.

The Introduction

After the 11:07 a.m. bell rings, and students have entered the drama classroom, they are signalled to seat themselves in a circle on the floor. Some students drift to the circle formation without being called upon, however others need to be reminded. The circle usually ends up in the centre of the empty, orange-carpeted drama room. Circle time is "teacher's time". In circle time I am able to introduce the day's lesson and objectives, review previous work and answer questions. As teacher, I like the circle because, as I tell my students, "I can see all of your faces." Amidst this circle time are interruptions, knocks on the door, late students, hand gestures and general settling into the drama environment. It is during this time that I read my drama class. Intuitively, I will gauge how much work it might take to move the class through the warm-up into activity, or even whether the warm-up is suitable or not.

On February 11, the introduction had a dual purpose. I was able:

1. to introduce myself as knowledgeable observer, to my students, and to remind them of the nature of my research.
2. to pass the class over to Petra.

Petra carried on from my brief announcement by explaining, "Today we are going to continue with storytelling in the mythology unit. For our warm-up we will create a story that examines the power of symbols, and for today's activity we will read four stories and draw some pictures and share the pictures." After the introduction, students generally move to the physical positions needed for the warm-up activity or activities. In this case, the students stayed in the circle formation.

The Warm-up

The warm-up session is used to prepare my students for the day's drama activities. Sometimes, important situations emerge from the warm-up and the warm-up is extended into the dramatic activity, with the dramatic activity receiving lesser importance than the warm-up. This cannot be foreseen, as there are so many elements which combine to cause and warrant a shift in the lesson's focus. Conversely, because of those same contributing elements, the warm-up activity may have to be abandoned, varied or shortened. It is the teacher's judgement and knowledge of the nature of the warm-up and the following dramatic activities, which will determine the importance of the warm-up. However, usually, the warm-up is the integrating step from the introduction into the dramatic activity.

On February 11, the warm-up was a 'circle poem'. The students were to sit in a circle and , in order of the circle, say the first thing that came to their mind about the objects in the centre of the circle. In drama, "we are concerned with inner imaginative thought and the spontaneous dramatic action which results." (Courtney, 1980,p.2) There were three objectives for this warm-up:

1. to reinforce the power of the symbol, as studied in mythology,
2. to increase listening skills, and
3. to allow the students an opportunity to express, listen to, feel and see the power of the symbol.

Petra did not tell the students that they would be creating poetry.

She did not want them to groan with negative expectations at the thought of poetry in drama.

Three objects were placed in the centre of the circle: a burning white candle in a brass candle holder, a four inch high glass owl and a reddish brown paisley scarf. Petra told the students to "think of textures, words, feelings, anything you think of..we will go around the circle and say what is in your mind."

Before any student spoke a word, Karl jumped up and said, as he was running diagonally through the circle toward the light switch by the classroom door, "let's try it with the lights off." Immediately, after the lights were switched off, the classroom quietened down. Karl's words were almost muttered, "the night is dark." The light surrounding the students was a hushed darkness, gently brightened by the stage lights behind them. The bodies surrounded the objects in a circle. Some were lying on their stomachs, others were sitting with their legs stretched out in front of them, while others hugged their knees to their chest. One student was twiddling a pencil. A few girls leaned close together.

The voices were low as they spoke. This is what they said:

THE POWER OF SYMBOLS

Seance
Candles Melting
The night is dark
it's on fire
A candle
The torch
Hell
Heaven and Hell
a scarf
joining as one
Warmth
Gypsies
Red
Magic
Fire
Forest Burning
Candlelight Dinner
The passing of years
Pyromaniac.......Prometheus.........Sun
On a table
Melting wax
Bloody Minds

(arranged by M. F. Fitzgerald)

When the circle had been completed there was a shifting of physical positions to release the tensions of their creative concentration and imaginings.

Petra asked the students to listen while she read the words. Danny, irritated by shuffling and whispers spoke up by saying, "Shut up, I want to listen..let her read." Danny, a class leader, wore a facial expression and used a tone of voice which told the class he was intensely interested in the results. The class, recognizing Danny's interest, became quiet. Danny's phrase was "candles melting". Danny watched Petra's face as she read. Before Petra began to read, Micky swooped the glass owl into his hands. Micky's word was "Prometheus". When Petra had finished reading the poem to the class, she asked if anyone else would like to read it to the class. Danny read it aloud. His reading was interpretive - he worked at giving feeling and atmosphere through phrasing the words. Roy, whose word was "Pyromaniac" asked to read the poem. Roy's reading was choppy, slow and hesitant.

The warm-up had been a group experience. The students had shared inner thoughts and created something together. They liked what they had done, felt the power of the symbol and the enjoyment of the magic of the creation. They respected each other's imaginings. The group worked in an honest way. Together, they had created a moment in time. Bolton discusses the symbolic importance of the circle or the ring. He cites Joseph Lee's observation:

> "There is in the ring game the sense of belonging to a social whole.. We feel and care about the ring itself. There is a sense of personal loss if it gets broken - to have it squashed in on one side gives a sense of impaired personality... and we hasten in such case with much squealing, to mend or round it again. The ring is now a part of us, as we of it...It is an extension of ourselves, a new personality; we act now not as individuals, but as the ring; its success is our success and what hits it hits us. The ring, like the family, is a social whole. (1984, 29)

After the students had finished the warm-up, I had to step out of my role as observer, I could not stop myself. As teacher, I strongly felt that all of the student's needed to see what they had created. I quickly took Petra's written version of the poem and printed it out onto a white bristol board with black felt pen. I posted the poem near the exit. I used poetic license and positioned the words, following the given order, into free verse. "Society has developed rituals and symbols to be used as messages of meaning - the syntax of signal and response - and these change in intensity according to the type of communication required, in order that all present can construct meaning out of the event." (Johnson and O'Niell, 1982, 131)

Thoughts On Imaging and The Psychological Elements

"Learning in drama is essentially a re-framing". (Bolton,156) This re-framing is achieved by breaking the ordinary habits of perception. "Of all the kinds of imaginative behaviors, however, drama is the only one that articulates inventing, anticipating, recollecting, hypothesizing, creating, musing and day-dreaming or any other mode of imagining through the medium of concrete action." (Bolton, 1984, 142)

Drama "offers the possibility of a synthesis of language, feeling, and thought which can enrich the individual's inner world, increase awareness and understanding of the outer world, and develop competence and confidence in operating within it." (O'Neill and Lambert, 1982, 211). Three symbols had been isolated in the warm-up. The students responded to the symbols in their own style. Some phrases were impulsive (it's on fire), while others were reflective (The passing of years). Other phrases illustrated right brain lateral thinking (Candle light dinner), or left brain concrete thinking (a candle). The poetry also illustrated the channels of: concrete (a scarf), abstract (forest burning), sequential (Heaven and Hell) and random (Gypsies), thinking. Through this exercise the students were given an equal opportunity to express their thoughts through imagination. The activity allowed the students to express themselves through their natural learning style.The intensity and interest with which this exercise was accomplished reminded me of one of my early journal entries:

> Their style...one thing that has impressed me about this group is the way they can deal with concepts...In November we were working on picturization and tableaux..of course we were thinking of levels and focus..well, these guys could see the levels and how to make something interesting..not only that I started to talk to them about triangles in focus..and they caught

> on. I was impressed.....Yes, I think I like them because they like what they do. (Journal, January 24)

The Next Activities

After the poem was discussed, students were asked to find a partner. They were given four short stories to read aloud: Fitan's Fiery Ride, Pandora's Box, Philomena and Baccus, and Pyramis and Thisbe. Each student had to choose two of the stories to read aloud to his or her partner, while the other followed his or her own copy of the story. Then, the other partner was to read the remaining two stories aloud to his or her partner. The students, in pairs, were to think and share ideas about the stories. At this point, it was hoped that the images and symbols were recognized by the students. They arrived at the meaning of the stories through their own thinking and mediation abilities.

The student's next task was to choose one story and draw one picture which he or she thought would best represent the story. After this, the students gathered in the circle and showed their pictures and related how the picture represented their particular story. Through the drawings, students were able to use their natural psychological aspects of learning style. The drawings themselves illustrate styles of thinking. They drew what they felt or thought represented their story. They chose the stories which they liked best - something in the story had to work for them. In sharing their pictures, they added context to their frame of reference to the story. This activity allowed the students to work through their natural style. There was one student, Micky, who did not draw anything. Perhaps for Micky, there was discomfort with the activity or he could not find a way to begin. Petra asked him what he would have drawn and he responded with, "a chariot."

The importance of the dramatic activities allowed the students to come to terms of understanding and learning in the styles of thinking that were natural to themselves. As with so many dramatic activities and tasks, the students apply their past knowledge, with the current situation and deal with it in their own terms. The activities in this particular class simply demonstrate how the students use their natural learning styles in drama.

THE SOCIOLOGICAL COMBINED WITH THE EMOTIONAL LEARNING STYLE ELEMENTS IN DRAMA

During my research I found that many of the Dunn and Dunn learning style elements were interactive. For example, the environmental elements would affect the physical elements - wouldn't it be difficult to conduct a drama class oriented to student mobility (physical) in a room designed without any open space (environmental)?

One of the strongest themes to emerge concerned the interaction of the emotional and sociological elements. These elements could not be separated in this research. Each of the elements acted upon the other. Social interaction occurs when individuals act together in society. I have found that the sociological elements which contribute to social interaction, according to Dunn and Dunn, are the overt actions easily observed in drama. The sociological elements, according to Dunn and Dunn, identify the students' preferences for learning alone, with peers, in pairs, in teams, with media or in several ways. In the drama class, while exploring dramatic activities students are continuously working through these sociological variations. "In any one lesson, students should experience working together as a class, in large and small groups, and individually." (Booth, 1985, 60) The student is provided with the opportunities to explore drama through various groupings. In my drama classes, elements of co-operative learning strategies, (Johnson and Johnson, 1984) enhance active group membership, by assigning individual responsibilities within the group, thus ensuring participation.

The sociological elements in the drama class cannot be separated from the emotional elements. I have found that it is partially through the various sociological dynamic groupings that the students work with the emotional elements. The emotional stimuli, as defined by Dunn and Dunn, (1987) are student motivation, persistence and responsibility as well as the student's need for structure. In drama, I often find that it is the effect or result of students working with their peers, in pairs, groups or teams, or by working in isolation and in parallel play that students become motivated, illustrate responsibility and demonstrate persistence. I have found the emotional stimuli to be dynamic in nature, by being both introverted and extroverted or unobservable and observable.

The Drama Curriculum addresses emotional stimuli in its own terms. One of the goals of this curriculum is for students, "To acquire knowledge of self and others through participation in, and reflection on, dramatic experience."(3) Two categories, interpersonal and personal skills, are given focus. Interpersonal skill objectives are for students to develop the ability to interact effectively and constructively in a group process; extend the ability to understand, accept and respect others- their rights, ideas, abilities and differences; and develop the ability to offer and accept constructive criticism. Personal skill objectives focus on the student's willingness to make a decision, act upon and accept the results, develop a sense of responsibility and commitment, and to develop the ability to initiate, organize, and present a project within a given set of guidelines. Therefore, through the personal skill objectives, the emotional stimuli of student persistence, motivation, responsibility are also addressed.

Dramatic growth parallels the natural maturational development of the student. As the student matures, physically, emotionally and socially, he or she works with the drama content and skills at the level he or she is able to undertake. This concept is important in relation to Butler's thesis that students enter into different stages of natural style development and that each stage is unique to the individual. The stages of style development, as identified in Chapter 3, are the developed, emerging, experimental, adjusted and hidden styles. Also, important are the stages beyond natural style development such as the natural, flexed, adapted, coping, resistant and the masked styles.

Considering the stimuli pertinent to sociological and emotional elements in learning styles, the interpersonal and personal skill objectives of the Drama Curriculum, and the levels of style development from Butler, the elements of sociological and emotional learning styles were combined. I will explore my own response plus the combined responses of my students and the knowledgeable observers on the topic of emotional and sociological learning styles in drama.

Emotional and Personal Safety

I have often wondered, as I observe my drama students, just what risks they are taking in order to share their work with their classmates or invited audiences. Are the students conscious of making personal decisions before committing themselves to the drama task? Why are they willing to expose their ideas and thoughts to others? What exactly does it mean to the students as they participate in a drama activity? How natural are the activities for the drama student? To me, it appears that when students are happy and eager to be responding positively to the above questions they are performing within their natural or developed learning style. When a student is having difficulties, the student adopts a way of being, or learning style, that may be uncomfortable to him or her. When this occurs the student's learning style is being uncomfortably flexed and the student adopts a style unnatural to himself or herself. If the student is adopting a style unnatural to himself or herself, that student is working in a style beyond natural style development. It is important for students to become at ease while flexing into other learning style channels. Some students never become comfortable in a particular activity while flexing through a different channel of learning style. When this occurs do the individuals feel emotionally unsafe or personally unsafe within the drama confines? To answer these questions, I looked to the work of others and to the students.

> "When the climate and structure of an improvisational drama class are sufficiently open, safe, accepting and stimulating, the students can be spontaneous and daring in responding to the unexpected challenges." (Booth, 1987, 85)

McCaslin comments upon the need for adolescents to feel safe within their environment by stating:

> "Dramatizing makes it possible to isolate an event or to compare one event with another, to look at events that have happened to other people in other places and times perhaps, or to look at one's own experience after the event, within the safety of knowing that just at this moment it is not really happening." (McCaslin, 1981, 78)

Julianna, observing for her second time, commented:

> "And I noticed today too, they were much less inhibited when they did their individual work. This is the age when they feel safe in groups and they can start going to town, and it takes them awhile to get to town and then they are working in the safety of the peers working around them. You know, I looked up once or twice, and I knew they were less inhibited since last time....And they became more and more

> engrossed the longer they worked in their groups...The response of the work - they like it here." (Interview with Julianna)

Two students backed up Julianna's observations with the simple comments of, "You get to work in groups with people you know" and, "You learn to co-operate and to listen to other people."

With the feeling of emotional safety comes the need or motivation for personal importance. Evelyn, a quiet student, commented, "I feel important, it makes you feel great when the audience claps and laughs at your words and movements." It is this need to know that one can feel safe and be recognized in a positive manner which allows students to work in their natural learning style and perhaps flex to a new channel. In this environment students become motivated. As one observer noted:

> "The students were very gratified when they finished their performances,(in class sharing) ...the groups seemed to have genuine pleasure from their performances that they put on....Their audience behavior was courteous because it was curious. I was also surprised by the respect everybody had for the stage performances, when you opened the curtain there, its a whole different ball of wax." (Interview with Russ)

As one of the students commented, "Drama class is different from other classes because you get to act out and do more real life things instead of just sitting in desks and doing paper work." As Cottrell says:

> "The need to know who one is, particularly in relation to others, becomes increasingly important and bewildering as relationships are enlarged. The need for opportunities that afford emotional release in constructive ways also grows as life takes on greater complexity." (Cottrell, 1975, 19)

As Dorothy Heathcote says,

> "Dramatic activity is concerned with the ability of humans to 'become somebody else', to 'see how it feels', and the process is a very simple and efficient way of crystallizing certain kinds of information...Drama, draws directly upon the individual's life and subjective experiences as its basic material, and achieves this in circumstances which are unique - that is when 'a willing suspension of disbelief' applies, and when those concerned are using their subjective world to illuminate and understand the motivations of others through role-playing." (Johnson and O'Niell, 1982, 54-55)

Group Work

I can remember the surprise I felt during our first drama class while asking students to play a circular name game. I had thought the school population of 450 students rather small compared to the senior high where I had previously been working. I assumed that the grade eight students, being one-third of the school population, would know each other, and not only that, they would know each other quite well. There was only one student, Danny, who could go around the circle and name most of his classmates. Many students only knew four or five names. I was surprised by their timidity in naming those whom they knew slightly, and I was surprised by the anticipation of the students waiting for others to identify them correctly. In order to help the students work actively together, we started off in class team drama games identified in the Orientation Unit within the Drama Curriculum Guide. When students appeared comfortable with the team technique we moved into smaller groups. By this time some students had made friends with others and would prefer to work with their friends. Mixing and matching students to create variety in group membership was a continuous task throughout the year.

When this research began the students had just successfully completed working within sub-teams as part of a large team. James commented on the class work, "I think what the class thinks of when we are performing on the stage is that we are a team and should work as a team." However returning from holidays in January and starting our Melodrama Unit was like beginning again, except that now students knew one another and they understood something of the way I preferred to work with them. Now there were definite student preferences for partners and group members. Working with others (not friends) was becoming difficult for the students. Julianna observed,

> "Some objections with working with some of the assigned pairs, but we have to consider their age, and drama objectives. I like the way the groups were decided. That was a nice compromise. (Students were asked to find a partner they really enjoyed working with, and then the pairs were grouped with others to make groups of four.) They were working with the togetherness of it, never mind the content, more than the content, and in the end, they all worked together." (interview with Julianna)

I commented on what I had seen evolve in group and pair work:

> "I am beginning to think that they are not so comfortable in choosing their own pairs. They are not going with the people who are their friends. Some of them are and some of them are not. Some are going with people they may have worked well with before, they are beginning to make their own choices." (MFF)

However, the students did have definite opinions about working with others in group situations. In early April I asked the students for their opinions about group work. Comments from the students about the concept of group work were:

Karl: I like to work with Shannon, Dennis, and Jamie, Jamie and I don't often get along, but when we do we usually do pretty good work.

Chuck: What makes group work a success is that you get to work with people you know and you can also work with people you don't know so you can become friends with them.

Victor: I think what makes a group successful is when everyone cooperates and works as a group, not an individual. I also think the right people and the ones that work or want to work and they should be put into one or two groups and the people that want to screw around should be in a group.

Janie: I like to work with a mixed group - a good girlfriend or two and a couple of guys. I enjoy working with others in a group because you do not have as much responsibilities. I do not like working with people who make every single decision including the big important ones with out checking with the rest of the group.

Micky: No, it is not easy to work in a group for me because we never get any thing done.

Dale: Trying in a group. It is also better when your [sic] working with your friends because you can decide on more things and you can have fun.

Roy: I find I like to work with Dennis, Jamie, and Krystal, all three of them have very good ideas, and they let other people incorporate their ideas as well.

Joy: I think that coming and being there when you are needed makes a group a success. I also think that sharing your ideas with the group would make it a success. When we also help out and ask/answer questions, that will also help.

Christen: I feel that group work takes patience. Many times groups are arguing either about what to do or who to do it with. I think everyone's ideas should be heard and then judged. And if a member makes a mistake they shouldn't try to kill that person. We're all human. Also, it takes co-operation, and I am finding that some kids just do not want to work. Group members should be patient with each other and if you are in a group do your best to make it work.

Rhonda: Cooperation and letting everybody to talk. You should work with people you like and feel comfortable with. If you work in a group you should share all your ideas with everyone else. Working with a group takes a lot of patience and understanding. If you all cooperate and try hard your play will be a success.

Jodel: It is easy for me to work in a group because I work a lot better, there are more ideas, you get to work with your friends. But it really depends on the people you work with. If you don't like the person you are with it is hard to work with them.[sic]

Gloria: It is easy for me to work in some kind of a group. I like to have a group that will get down to work and also wants to get something together in the little time to make it the best that we can cause I'm a person that likes to get some work down in the time that we have.

William: It is easy if I am in the right working group instead of a no working group.

These comments illustrate the students' understanding of what they knew to be positive group work. The students felt the need for cooperation. Also the students could identify when a group was working successfully and naturally together. When they could identify success they were also talking about responsibility. Sometimes the students identified feelings of safety within a group project because they were then not the only student responsible for the end-product. The safety factor aided student motivation. Joanne commented:

> "You have accountability by having them share their results with the class and there is a real accountability, at the end they have to come up with something. You do not have to say too much if they haven't come up with something. They know." (Interview with Joanne)

Students were not always successful within their groups. The following is a conversation, which identifies the difficulties or roadblocks in junior high group work. These students had chosen, as a group, one style or drama form of presentation out of a possible six. This day, in January, they had class time to work on their project, and were not succeeding. I stepped in:

Micky: It is too late now. You start with our group and then you leave.
Bryan: Roy is a geek.
MFF: You are not responsible for Roy's behavior, you are responsible for your own behavior.
Bryan: So, Roy bugs me.
MFF: Roy can you do something about that?
Roy: Ya.
MFF: If your group can not act this out, why don't you just make frozen pictures then? You like the frozen pictures. I think you all could do that.
Christen: Yes, but see, nobody will listen.

(Class, January 29/88)

As William so succinctly said, "Group work can only work if you cooperate with each other and not fight and listen to the other people's ideas."

The students' comments on group work and the following conversation demonstrate student responsibility. In the groups, students can motivate one another, while at other times students can interfere with the motivation and persistence of a group. These comments on group work illustrate how the sociological and emotional elements interact. It is through experiencing the variations in sociological patterns, that the students have identified their preference for group work. The need to work in groups is a predominant group learning style. In the Dunn and Dunn Inventory, eight students identified a preference for working with their peers, while four students preferred working alone. Tanice, Sharon, Julia and Evelyn preferred to work alone, however, in their comments about group work they stated:

Tanice: Group work is a success. You get more ideas and better ideas.

Julia: I like to work with my friends, because they are the people I find easiest to work with and easiest to get along with, I prefer to work with a group of 3 or 4 or less, maybe more, but it depends what the project is we are doing.

Sharon: It is easy for me to work in a group because I like being able to work with other people. If I was to work by myself on an act I would be so bad and embarrassed when I got on the stage, for sure I would have major stage fright.

These students did not tell me if they still preferred to learn alone, but in their drama experiences they were more willing to work in groups.

Peer Interaction

In the spring, I had noticed some effects of peer interaction within the drama class. I could not identify the exact problem having to do with peer pressure, however four students involved, especially Janie and Danny, carried this social problem into the drama class a number of times. I commented to Julianna, "I'm finding a lot of things different. I, myself, am finding this friction that is going on between students, and it is really jarring me because it's affecting part of the class."

Julianna, then, focused on a note the students were passing between themselves and asked why I hadn't taken it away. I responded by saying,

> "I was hoping they would come to an understanding on their own. I certainly recognized it, and I tried to focus on them when I told the class we would wait for everyone to be ready before we continued... It did not work because Janie and Danny are being so verbally and vociferously negative at times, I did not want to go through that when the rest of the class seemed to be functioning fine. I did not want them to cause a wrinkle for the others at that time.....That is why I talked to them at the door."

Julianna then asked, "So you are looking for self discipline rather than the outside discipline?"

To which I readily responded, "At this point in time, I think they should be responsible for that."

These comments illustrated my reflection upon the students' ability for responsibility. I believed the students could choose to be responsible or not responsible. The students recognized and knew what was expected by me of themselves as class participants. However, I realized the students could not disassociate their personal problems from drama problems. Their problem with responsibility affected their motivation and persistence. Their problem could not be contained within themselves. Their moods and uncomfortable feelings slowly infused the drama class group. The priority among this group of students was not drama, but the sorting out of personal problems. This was natural to them and needed to be dealt with first. At this time, learning styles in drama were of little use or concern to the students. It is important to recognize the effects of peer interaction and what it can do to learning and learning styles.

During one class the same five students, some of whom were involved in the note issue described earlier, became so antagonistic toward one another that I had to ask them to stand outside the classroom, until I could deal with their problematic behavior. When I spoke to them I told them how their behavior was affecting me and the work of the drama class. I told the students I did not want them to be left out of the class, and their personal problems should not interfere with the good work of others. I asked them to come back into the class, observe the work of others and write down what they saw their peers doing. They could also write about their problem. The students became detached observers. Their comments illustrate the problems of peer interaction.

Janie: I see Victor in the corner rocking back and forth on a chair. I see Karl talking about me to him. I see Danny working on the same thing I am and Shaun keeping him company. I see Mrs. Karp [Guidance Counsellor, Joanne] observing us and Julia's group suggesting ideas and trying them out. I see you looking at us and William writing. I see Bryan's group socializing with Simon on chairs. I see Joy's group working on stage. Now Karl is criticizing something or other on me writing. Joy's group just finished but Christen yells that they are not done. You are taking pictures of **everyone on stage**. But we are not there. We are sitting in the back observing everyone. Ryan's group is on stage. Now, I guess Christen's play was done. Our class looks like a perfect class if you just look at the middle of the room. There is [sic] two rows of people. They look like they planned it.

Karl: My problem is Janie. She is constantly criticizing me, my work and my ideas. It really annoys me and today I just blew up. Sorry for disturbing the class. I think if you give me, Danny and Shaun another chance we'll do very good work and make it up to you.

Danny: My problem is Drama. I really hate drama now. Sometimes I can really like it and sometime I can't. I also dislike the way you picked the groups today. You kept Shaun and Karl together and split me away from them. That ticked me off. I may regret this note later but when you picked the groups that made me mad. I also think if you give me Karl and Shaun a chance, we will do awesome work. Sincerely yours, Danny.

William. My problem is Drama. I can like it some days and dislike it some days. But today is not a good day to like drama because I am having a bad day. These people are sometimes responsible and some of the time not, but today they are unorganized and need supervision sometimes. These people are bad and sometimes mean to you. If you have an idea they will put you down like say "Shut up you stupid loser" or "get out of here shorty". This is what makes me mad and that's why I hate drama class sometimes.

Peer interaction and relationships are extremely important to the adolescent. Often their actions do not indicate the inner feelings that they truly wish to express. It is clear that the students prefer group learning, yet at times the working of a group is not natural for them. When this occurs, I believe the students' emotional stimuli become distorted and thus, the style in which students learn becomes blocked. Therefore, under stressful conditions and in order to accommodate the learning task, students move into a style unnatural to themselves. This style is unnatural for the students because they are not allowed to be themselves or act in their natural developed styles. Conversely, if the group is working cohesively and students are working together by listening to one another, cooperating and trying new ideas, students begin to stretch or flex into other learning channels or styles. The motivation and group responsibility allows students to work in, and beyond their natural learning style.

Structure

The students' need for structure is the individual's need for either specific direction or latitude when completing tasks. On this the Language Arts teacher noted,

> "The students worked within a general structure, there was much room for exploratory and contributive experience. The teacher was not judgmental but visited groups to focus their energy. Involvement in the process was not hampered by said expectations or results. ... Once the process is set in motion lets just see what will happen and it might just be a surprise to everybody." (Interview with Russ)

According to the Dunn and Dunn Inventory six students strongly identified a need for structure. Karl's thoughts on structure reflect his need for classroom structure. Bryan and Julia's thoughts reflect their preference for internal structure, although they identified a need for classroom structure.

Karl: I like precise instructions because then I don't have to worry about trying to get our group organized and wasting time.

Bryan: I like to make my own rules to follow because I get better results.

Julia: I don't like precise directions. I like to make my own decisions and like to make up what we do.

The following comments also illustrate student ideas on classroom structure:

Anon.: Sometimes I prefer having precise directions when I don't know what I can do. But most of the time I prefer to make up my own rules because then I may have many ideas.

Victor: I would like a main idea of a project and then I would like to do my own rules. Why, is because I don't really want to be told how to act but I would really like to express, my ideas. I perform better when I have an idea of what to do.

Roy: It is not easy for me to work in a group because I find I have different views and ideas than the others in the group.

Tanice: When I am getting told things I like to get all the right rules.

The way the students have expressed their thoughts on structure reflects the style in which I teach. Most often, at the beginning of a class, exercise or task I will explain and sometimes model what is needed from the students for the activity. Through brainstorming and lateral thinking I allow for different learning style approaches to be addressed. I always tell them that they need not follow my example, and that their way may also be correct. Simply, the students are given the framework and they are allowed to choose the path which works best for them and the task. This is how I use Butler's Multiple Approach. The students are supervised and evaluated according to the learning demands of the drama activities as well as the style that each student brings to the approach. If students choose to stay in a style that is comfortable and natural for them, that is their choice, but I will often try to extend their style by offering new possibilities and objectives.

Motivation

Dunn and Dunn suggest that motivation is the individual's desire to achieve academically. According to the Inventory two students, Christen and William identified themselves as motivated. Three students, Bryan, Simon and Nina, identified themselves as not motivated. Another two students offered different views on motivation.

Tanice: I like working with Kristal because she makes you work and therefore we get our work done.

Shaun: When I receive a task I usually fool around but I get it done. Sometimes I do it and then fool around if I have time.

As an insular stimuli, identified by Dunn and Dunn, motivation is difficult to separate from persistence and responsibility. Seven students identified themselves as non- persistent while five students identified themselves as not responsible. However, these were not always the students who identified themselves as non-motivated. Earlier, I had questioned what motivates the students to participate in drama. The Dunn and Dunn Inventory has two categories under motivation - parent-figure motivation (students work to please their parents) and teacher motivation (students work to please the teacher). I have identified these categories as possible reasons for student motivation. Eight students identified parent-figure motivation as a learning style factor. This whole research class defined themselves as not teacher motivated. Not one student was motivated to learn in order to please their teacher. As their teacher, I at first felt somewhat affronted by the fact that not one student was working to please me. I also did not know if the students were equating learning with learning through drama or with learning in their core subjects. Upon reflection, I knew that the students enjoyed being in the class and enjoyed their work. I allowed them the opportunity to work with and learn from their peers. The Language Arts teacher, Russ, confirmed that fact, as did other observers,

> "the other surprise was ah, how non-interfering they were with each other's groups, and with each other, umm, how content they were to actually work on task."

Russ also observed what the students brought of themselves to their tasks and how they worked with each other's styles,

> "I say this is a Taoist approach to Drama instruction, that is when a thing is well done, (in terms of government), the people say we did it ourselves. That is what I saw here." (Interview with Russ)

This made me realize that for the students, the process was more important than the content. I believe the students were strongly motivated by the possibilities of personal interaction. The drama content was simply a vehicle which gave them the opportunity to work together in exploring themselves and others. This exploration allowed for affective growth in self identity, emotionality, and social interactions. Again, the emotional and sociological elements interacted so strongly, in this research, that they could not truly be separated. The learning style consultant's observation synthesized the interaction for me,

> "This incredibly energetic group of kids who were all sort of really trying to establish themselves in a kind of personal way, and that kind of interaction, energetic interaction, it was really fun to watch....." (Interview with Joanne)

THE FOLLOW UP TO THE DUNN AND DUNN INVENTORY

In late June I administered the Dunn and Dunn Inventory to the students once more. I did this for two reasons:

a. I wanted to observe the differences in the testing environments,
b. I wanted to see if there were any major differences in the students' individual learning styles.

In June, I administered the Inventory in the drama studio. The spotlights were on as usual and the only furniture in the room were rostrum blocks and a few benches. Students were dressed in bright summer clothes and the day was sunny and warm. There were noisy, boisterous students running up and down the halls. The students wanted to be outside sun tanning and playing summer sports.

Gathering them into the circle this day was difficult. The chattering would not stop. The students were being distracted by one another. There were few regular class days left and students would be leaving early for holidays, so I went ahead and administered the Inventory. I wanted the students to respond to the Inventory in their regular drama environment. Students moved into various physical positions, some sitting or lying on the floor, some using the rostrum blocks as desks and others were leaning against the walls. Some students were not taking the Inventory seriously. Danny, Karl and Shaun were continuously talking. Micky and Bryan could not sit still and would roam from group to group. Finally, in a darker corner, using a rostrum block as a desk, Micky sat down and I sat beside him reading each question aloud to him. Bryan moved to sit behind me and worked along with Micky as I read the questions aloud. Basically, I felt the majority of students were not attentive to the Inventory. The comment was, "We did this before." In the role of teacher, I realized that flexibility was called for and given a choice, I would rather have used the students' boisterous energy in another fashion. In the role of researcher, I wanted the information as a comparison with the first Inventory. Also, I realized that according to Dunn and Dunn, students should be fairly consistent in their responses.

The Class Profile

The class profile did change. Tables five and six on the following pages illustrate the class percentage profiles tabulated in June. (also see Appendix G) Again, using the 30% factor as I did in the first Inventory, the profile now illustrated that the class preferred learning in the afternoon, working through auditory channels, and perceived themselves as non-motivated, non-persistent and not teacher motivated. All other factors were not as significant for me.

TABLE V - 3

LEARNING STYLE INVENTORY

TOTAL RESPONSES BY SUBSCALE FOR STANDARD SCORE EQUAL **TO OR GREATER THAN 60** (06-27-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO: 48

LSI AREA	SUBSCALE	RESPONSES	PERCENTAGE
NOISE LEVEL	1	2	8.70
LIGHT	2	1	4.35
TEMPERATURE	3	3	13.04
DESIGN	4	0	0.00
MOTIVATION	5	1	4.35
PERSISTENT	6	2	8.70
RESPONSIBLE	7	2	8.70
STRUCTURE	8	4	17.39
LEARNING ALONE/PEER	9	3	13.04
AUTHORITY PRESENT	0	3	13.04
LEARN SEVERAL WAYS	11	3	13.04
AUDITORY	12	2	8.70
VISUAL	13	6	26.09
TACTILE	14	3	13.04
KINESTHETIC	15	3	13.04
REQUIRES INTAKE	16	4	17.39
EVENING/MORNING	17	5	21.74
LATE MORNING	18	5	21.74
AFTERNOON	19	7	30.43
NEEDS MOBILITY	20	2	8.70
PARENT FIGURE MOTIV.	21	4	17.39
TEACHER MOTIVATED	22	2	8.70

TOTAL NUMBER OF STUDENTS: 23
TOTAL RESPONSES: 67

TABLE V - 4

LEARNING STYLE INVENTORY

TOTAL RESPONSES BY SUBSCALE FOR STANDARD SCORE EQUAL TO OR LESS THAN 40 (06-27-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO. 48

LSI AREA	SUBSCALE	RESPONSES	PERCENTAGE
NOISE LEVEL	1	6	26.09
LIGHT	2	3	13.04
TEMPERATURE	3	2	8.70
DESIGN	4	5	21.74
MOTIVATION	5	9	39.13
PERSISTENT	5	10	43.48
STRUCTURE	8	8	17.39
LEARNING ALONE/PEERS	9	6	26.09
AUTHORITY FIGURES	10	5	21.74
LEARN SEVERAL WAYS	11	3	13.04
AUDITORY	12	7	30.43
VISUAL	13	3	13.04
TACTILE	14	3	13.04
KINESTHETIC	15	5	21.74
REQUIRES INTAKE	16	3	13.04
EVENING/MORNING	17	3	13.04
LATE MORNING	18	3	13.04
AFTERNOON	19	5	21.74
NEEDS MOBILITY	20	6	26.09
PARENT FIGURE MOTIV.	21	6	26.09
TEACHER MOTIVATED	22	11	47.83

TOTAL NUMBER OF STUDENTS: 23
TOTAL NUMBER OF RESPONSES: 114

Using the data in comparison from the first inventory to the second inventory, significant changes were:

	First	Second
1. Need for a warm temperature	34.78%	13.04%
2. Learning in early morning	30.43%	21.74%
3. learning in afternoon	30.43%	30.43%
4. prefer working with peers	34.78%	13.04%
5. prefers kinesthetic activities	30.43%	13.04%
6. needs mobility	30.43%	8.70%
7. non persistent	30.43%	43.48%
7. parent figure motivated	34.78%	17.39%
8. teacher motivated	0.00%	8.70%
9. not teacher motivated	21.74%	47.83%

Clearly, there were changes in the students preferences. The results of this Inventory made me ask, what does learning mean to the drama student? Does the drama student perceive learning only to take place in a classroom with desks while the students work on paper work tasks? Were the drama students stable in their learning styles within their academic disciplines? These questions, while not answered in this study, are in the process of being answered by myself through my future drama work. I know from student information that students understand that in drama they learn about themselves, and how to work with others. But do the students see that as school work? I arrived at some conclusions and questions considering the comparison of the winter/summer Inventory results.

I believe the time of year had an influence upon student responses. In the winter Inventory, a need for warm temperatures was identified by 8 students whereas in summer Inventory the need was only required by 3 students. Did the warm weather outside eliminate the need for the warm temperatures inside? The need for kinesthetic activity and mobility dropped considerably in the Summer. Was this due to the students satisfying their energetic needs outside? Therefore, in Canada, should learning style inventories include a preference for seasons?

The non-persistent student numbers rose from 7 to 10: 10 students in a class of 23 is a significant representation. Did the students give up on school work in June? Did they give up on drama in June? Was the school year too long for them? I knew, with all of my classes, that I found it difficult to teach in June. I expended much energy in trying to bring the classes together as teams. I had problems finding ways to channel their boisterous energies.

Parent Figure Motivation fell from 8 students to 4 students in June. I thought this was odd, because for some students the end of a school year would be important to parents. Teacher Motivation rose from 0 students to 2 in June. Students identifying Non-teacher Motivation rose from 5 to ll students in June. Clearly motivation was decreasing. Was the motivation decreasing for school learning or specifically learning in drama? Dunn and Dunn have identified that self motivation decreases during grades 7 and 8, but then a gradual increase occurs in the grades thereafter. Also, the higher the grade level, the less Teacher-Motivated students became. In general, the higher the grade level, the less motivated students were. The biggest shift in self-motivation occurs between grade 7 and 8.

In 1983, the Dunn's collated research information to confirm that:

-students can identify their own learning styles (Dunn, 1983, 502)
-students learning styles are stable over time and consistent across academic disciplines. (Dunn, 1982, 145.)

I do believe that students can identify their own learning styles based on the environmental and psychological conditions at the time. However, further studies need to be conducted examining the relationship between students' self identified learning styles and the conditions under which they learn. Specifically in this case, I have to ask, which students, in drama, using the learning style instruments can recognize their own learning styles? These questions are not answered by this research. However, these questions could not be formulated until the research was complete. Dunn and Dunn also maintain that a student's stability in assessing personal learning style is consistent throughout one year. Within the class profile, I noticed some significant changes in five months. The numbers of students qualifying these changes illustrated a lack of stability among students identifying personal learning styles in the short period of five months. Was this small group of 24 students abnormal? Would these differences, in the larger scale of Dunn and Dunn's wide range testing (533 students, 1982) be considered insignificant?

CHAPTER SIX

CONCLUSIONS

INTRODUCTION

The findings of this research has spread in many directions. I would like to describe the effects. This research has allowed me to draw conclusions about developmental drama, learning styles and research methodology, synthesize learning styles and drama theories, recognize the impact this research has made, and design questions for further research.

CONCLUSIONS ON LEARNING STYLES AND DRAMA

The purpose of the study was to investigate whether developmental drama allowed students to explore their natural learning styles. Within this framework I considered three aspects:

1. does drama offer an inherent opportunity to explore learning styles,
2. was it possible to fuse the concepts of developmental drama and learning styles,
3. do students in drama learn in a different style or fashion, to that of other subjects?

Response to Question #1

I believe drama does offer an inherent opportunity for students to explore their learning styles. I found the nature of drama and dramatic activities allow students the opportunity to explore different avenues of their learning styles. The drama classroom environment and the drama activities are basically different from learning activities offered in other school subjects. Because of this difference, students must use different learning strategies to enter into dramatic activities. While doing this, students are either exploring their natural learning style, or they are flexing and stretching, comfortably or uncomfortably, into a new learning style. This is not to say drama techniques are not integrated into other subject areas, however, in the drama classroom these various techniques are consistently used. Therefore, drama, through its nature, offers an inherent opportunity for the student to explore his or her learning style.

Specifically, I found that if, according to Dunn and Dunn, the stimuli affecting individual's learning styles were environmental, sociological, emotional, physical and psychological, then drama offered opportunities for exploring learning styles through:

A. ENVIRONMENTAL ADAPTATIONS: the elements of sound, light and design are continually varied in the drama classroom. Each of these elements is unique and works on a continuum through various dramatic activities. The following is a summary of my findings about each environmental element:

SOUND OPPORTUNITIES: Dramatic activities vary in the noise factor on a continuum from silence (mime, movement, solo imaging, concentration exercises, audience behavior, evaluation) through to cacaphonic noise (parallel improvisations, vocal warm-ups and interpretations, group theatre games, musical exercises, rehearsals). Some students can concentrate only in silence, while others need noise to permeate their surroundings before they can focus or concentrate. Still other students may block out sound while working on a task. Because of the allowability for different noise levels in the drama classroom, individuals have opportunities to explore the level of sound in which they prefer to be working. Further, when students find a sound preference they are comfortable working in, they then can sometimes create situations whereby they can create the noise levels needed. Thus, the individuals have identified their natural learning style preference. For example, a student or group who needs silence may opt to work in the costume room, or in the hallway, or in a blocked off corner of the drama room. A student or group needing noise may ask for the tape recorder or radio to be playing while they work, or they may prefer simply working where other groups are present. Still others, who can block out noise while working, may be happy close to other working groups or off in a corner somewhere in the drama classroom.

SOUND CATEGORIES: I have found that in my drama classroom, while there are many levels of sounds, some sounds can be categorized. For example, there is the sound of **silence.** Silence could be found in activities such as:

-directed silent activities like specific concentration tasks or mime/movement work or cued directions.

-concentrated collective silence could also be found through unreflective spontaneous group absorption while on parallel task.

-audience inquisitiveness and interest found when individuals or group were truthfully absorbed while being in audience mode.

-anticipatory silence found in the elements of surprise, indecision or synthesis often found in group drama or small group improvisations or theatre games.

-imposed silence enforced by the teacher as a control technique.

There is also the noise of **sound** in the drama classroom. Sound could be categorized as:

-directed sound activities found in voice work, character work or reader's theatre.

-settling sound of a class shifting into an activity.

-distracting sound of noise outside and inside of the classroom interfering with activities.

-signal sound used as a control device by the teacher to indicate cues such as beginning or ending and exercise.

-mechanical sound such as curtains opening and closing, cue countdowns, audio devices switching on and off.

-working sound of groups or class on task in various rehearsals, improvisations or group drama.

Therefore, the student in the drama classroom is exposed to various types of sound at various sound levels. Drama offers the opportunity for the student to explore and be exposed to the variety of sound levels. It is this exposure to the sound levels and the variety of sound that allow students to discern their preferences.

LIGHTING LEVELS: In the drama classroom the opportunities for bright lighting (paper work, puppetry construction, discussion and evaluation) dim lighting (parallel or solo drama work of all kinds), focused lighting (stage presentations, individual or group spotlighting), and darkness (relaxation, imagery), are many. Some students need a brightly lit environment while others need a dimmer lighting for comfort and efficiency. Drama offers the student the opportunities to work in varied lighting circumstances.

I also found that lighting, which is obvious to the drama student and the observer, created both a comfort factor and a control factor in the drama classroom. Students, through dramatic activities, often found the lighting level in which they preferred to work comfortably. Individually, because of the opportunities, they could establish their learning style preference for lighting. Similar to the element of sound, when the preference was identified, students could often manipulate their environment to be in the lighting situation they preferred. In my classroom, if students needed bright light during group or solo work, they could move up to the stage where the fluorescent work lights were situated. Some students preferred to work in the defined circle of light, surrounded by darkness, created by the focused spotlight on the floor. Others worked well in a dark corner of the classroom, while others preferred the to be on the dimming edge of a light source. For many students the lighting source signified the ease and the comfort area in which they could work efficiently. Thus, their learning style preference for lighting became part of their natural or developed learning style.

As a control factor lighting was often used by myself and my students as a cue to begin or end a situation. Most students recognized the signals and some students learned how and when to use these signals appropriately. As a drama teacher, I found the dimmer lighting generally used in my classroom created a:

-working classroom environment which upon entering, the students recognized as a special, unique and different environment within the school in which to learn. Therefore, lighting was used by me as a control device which signified the drama classroom as a special place.

-blanket of safety which could subdue energies or encourage dramatic exploration.

DESIGN VARIATIONS: My drama room design is traditionally considered to be informal because of its lack of desks and because it is virtually an open work space. However in this informal work space, there are opportunities for formal design (which may be considered informal by some). Formally, there is the introduction circle, in which I shared my expectations at the beginning of class. Students usually all sat on the floor pow wow styleand in this manner we all began the drama class on the same physical level for communication. This circle was also used for class control because we could all see one another at a glance.

Generally, adolescents prefer the informal design (Price, 1980), while some students need the formality of sitting in straight back chairs. There was the sharing circle, (formal in design yet informal in attitude) in which students could drag prop furniture into and use as chairs, or they could lounge on the floor. There was formal design in our audience position. All students were seated on the floor within certain paramaters facing the stage. Also there was formal design to be found in many drama activities, such as creating specific shapes or lines of symmetry. Finally, there was the formality of group work areas in which students established working spaces for themselves. Therefore, there was a formality within the informality of the drama room design.

Students had the opportunities to explore both the formal and informal environment. I found that many students, when given the opportunity, would either create a formal situation with their group by having their group sit in a tight circle on prop chairs, while others informally lounged against a wall. The students had the opportunity to choose the level of formality they wished to create in the informal overall drama environment. Through the students' own words and the observations of the knowledgeable observers, I found that most of my students identified the drama room as a comfortable and easy place to be. Again, similar to the elements of sound and light, students, because of opportunities within the drama classroom, began to identify their preferences for formal versus informal design. The students began to establish their learning style preferences.

B. SOCIOLOGICAL VARIATIONS: Drama activities offer the student a variety of sociological variations. In drama, students often work alone (imagery, concentration, characterization, memory work, solo rehearsal), in pairs (mirrors, movement work, improvisations), with peers (group improvisation, story telling, collages, tableaux, research projects), in teams (theatre sports, drama games), with adults (group drama, directed sequences), and with media (film, video work, taped speech work). Students soon learned their preferences of working individually, in pairs, groups or teams. I have found, that when given the opportunities, and because they have had exposure to these various sociological experiences in the drama classroom, students often begin to identify and choose their sociological preference. Students may at first be unwilling to explore anything other than individual or pair work, however, through the opportunities dramatic activities offer, they may find preferences in small or large group work, team work, working with adults or media. I have also found these sociological variations to be inherent in my style of teaching a developmental drama program. Therefore, my drama students are given the opportunities to explore the sociological variations and consequently recognize their learning style preferences. This, then, helps to define the student's natural learning style. These findings also reinforce the Dunn and Dunn finding that the highest need to learn with peers occurred in grades 6 through 8.

C. EMOTIONAL STIMULI: The learning style elements of motivation, persistence and responsibility were important factors in my study. My adolescent drama students scored low on motivation in the first administration of the Learning Style Inventory and even lower in the second administration of the Inventory. This finding was compatible with the Dunn and Dunn finding, in that:

- self motivation decreased during grades 7 and 8,
- the higher the grade level, the less motivated in general students were. The biggest shift was between grades 7 and 8,
- the higher the grade level, the less teacher motivated students became.

I also found that it was difficult to separate or isolate the stimuli of motivation, persistence and responsibility. If there was motivation, then persistence and responsibility would follow. If there was lack of motivation or cohesiveness, persistence and responsibility would be abandoned. These stimuli were also strongly influenced by the sociological groupings. Opportunities of peer interaction, through pair or small or large group work, generally led to increased motivation, persistence and responsibility. This again reinforced the Dunn and

Dunn finding that the highest need to learn with peers occurred in grades 6 through 8. Although students identified themselves as low in these stimuli, all of the observers found the drama students to be highly motivated, persistent and aware of their responsibilities and commitment to self, others and to their drama task. This inconsistency is a question for further research.

D. PHYSICAL VARIATIONS: I found that drama offers the opportunities of an activity to be reinforced:

- auditorily: through giving verbal directions, discussions, sound experiences,
- visually: through modelling, spotlighting, notes on the board, visual media,
- tactile/kinesthetically: through students actually doing the activity.

In my classroom I found, auditorily, students to be impatient with verbal directions. Visually, the students became reliant on written directions either on the blackboard or on paper. Modelling, became an idea which they could accept, discard, or use as a personal base. Kinesthetically, the students' were always anxious to work in this mode. Mostly, of these three preferences, students identified the tactile/kinesthetic stimuli as a learning style preference. This kinesthetic preference enhanced the students' preferences for mobility versus passivity. Although mobility was not strongly identified as a class learning style preference, the observable behaviors of the collective group indicated a need for mobility. Again, the class profile on the students identified minimal preferences for mobility, however the knowledgeable observers identified the class generally as highly active and mobile. This inconsistency is also a question for further research.

E. PSYCHOLOGICAL PREFERENCES: Although the 1987 Dunn and Dunn Learning Style Inventory indicates categories for psychological preferences such as, analytic versus global processing, right brain versus left brain processing, or impulsive versus reflective processing, the individual and class profiles produced by Price Systems did not register these elements on the read outs. Fortunately, I had my other resource material from the Torrance Test of Creativity: Your Style of Thinking. From this I found that 82% of my research group was considered to be whole brained, neither left brained nor right brained. I concluded that these students were just beginning to shape their new styles of thinking into learning style preferences. Students were just beginning to question and know themselves as learners. They were also beginning to understand the ways in which they thought. From this factor I concluded that the adolescent lack of experience in self-understanding and identification contributed to the inconsistencies found in the mobility and motivation preferences.

One of the grounding activities in my drama class is brainstorming, whether formally directed by the teacher, or informally conducted by student groups. Our first rule of brainstorming is that all ideas are acceptable. Psychologically, this brainstorming activity allows for ideas from both the impulsive and the reflective thinkers. I found that once trust is established in the drama classroom, students feel free to blurt out, or ponder their ideas. Impulsive ideas are often changed into reflective ideas by guided discussions. This allows the impulsive student an opportunity to listen to ideas, and think reflectively on his or her impulsive statement. Conversely, the reflective student has an opportunity to identify the qualities and values in the impulsive statements. The opportunity is there for students to recognize, practice and accept different processing styles.

Similar to the impulsive versus reflective processing, and the right brain versus left brain processing, is the global versus analytical processing. Global processing is often indicative of right brained thinkers, while analytical processing is indicative of left brain thinkers. I found that empowering the drama students with a sense of autonomy, in the fact that their ideas, although different than other people's ideas could be appropriate to the given situation, allowed students to develop their global or analytical processing. The drama activities offered the students the freedom to process in the style natural to themselves, while observing others personal methods of processing. Therefore, dramatic activities inherently offered students the processing opportunity to work in their natural learning style.

Response to Question #2

I found that because of the dynamic nature of both learning styles and drama, it is possible to fuse learning style and developmental drama concepts. Elements of learning style theories, such as varied sociological groupings, environmental adaptations and psychological stimuli, are inherent to the nature of developmental drama. Developmental drama, often viewed as an isolated and different subject by the nature of its activities, offers different learning opportunities for students to explore their learning style naturally. Learning style theories support the dynamic and varied activities found in developmental drama.

The fusion of the concepts is supported by the findings in Question #1. I found variations of the following learning style elements such as, sound, light, design, motivation, persistence, responsibility, sociological groupings, perceptual modalities, mobility, and psychological processing to be inherent features in my developmental drama program. The elements of temperature, structure, intake, and time, although important and relevant were not as significant as the above mentioned elements, in this study. It is the nature of drama to consider all of the above elements at some time or another. It is the nature of learning styles to offer opportunities for preferences to be explored. Therefore, it is possible to fuse the concepts drama and learning styles.

Response to Question #3

I found that it is difficult to state whether grade eight drama students learn in certain fashion or style. The nature of many dramatic activities requires the individual to apply, synthesize and analyze his or her drama knowledge in either a prescribed or totally non-prescribed method. I found that students had to be exposed to, and taught how to cope with certain activities. For example, students in dramatic activities must engage in certain learning strategies, such as co-operative learning in group work. When this occurs students are possibly flexing and stretching into unfamiliar, non-dominant learning channels, or they are simply developing their natural learning style. In the drama environment there is opportunity for the non-dominant channels of a student's learning style to be nurtured by the student, by his or her peers, and by the teacher. Students when comfortable, can then flex easily into their non-dominant channels.

I also found that although students may not be able to verbalize or identify what they are learning in drama, students tend toward using certain learning style strategies and coping methods in the drama classroom. This flexing, or coping, illustrates the possibilities of student growth in learning. Also, it indicates that there is the possibility of learning through drama in a different style of fashion compare to that of other subjects.

Other Conclusions

From this study I have formed other conclusions about drama, learning styles and the research process. These conclusions fall into two categories.

They are:

A. Drama and Learning Styles

1. the quality of the working level in the drama classroom depends upon the ambience (the mood, character, quality, tone and atmosphere) created between the triadic relationship of the teacher, the students and the subject taught.

2. the teacher must understand his or her own learning style before implementing a similar learning style program in the classroom.

3. learning styles need only be implemented for students in difficulty. However, methods such as Butler's Style Differentiated Instruction may be used to flex and stretch developed students into other learning style channels.

4. teachers must recognize the levels of natural style development and the levels beyond natural style development.

5. **learning style categories are not labels to confine student's identities through stereotyping.**

6. learning style concepts should be used as a guide and as a communication tool for expanding students' learning capabilities.

B. The Research Process

1. As a teacher/researcher, the individual must find methods to separate themselves from the data for both reliability and verification. There needs to be a balance between detachment and involvement. Knowing this, in this study, I found that the procedure of methodological triangulation allowed for convergence, inconsistency and even contradiction of the data.

2. The teacher/researcher is accountable for the actions during the research. It is imperative that the teacher be aware of designing situations in order to accommodate the research findings.

3. The use of the knowledgeable observers was valuable for me because they could assist in identifying the assumptions and habits of which I was ingrained and could not recognize.
4. The interview process with the knowledgeable observers was necessary for defining, understanding, probing and clarifying the written word.
5. The research product is similar to the finished product of a play. Although a final product is presented, both the artist and the qualitative researcher know that there is always room for slight changes. These changes in nuance help communication with both the audience and the reader.

PERSONAL REFLECTIONS

The process of this research project has been rewarding professionally, educationally and personally. As an educator I have grown considerably in the understanding of drama, the adolescent student and learning styles. First, the research has helped me to understand a new approach to drama, a subject I have been teaching for twelve years. The benefits of this have allowed me to have new and fresh insights into the theory and practice of drama in education. Also, it has reminded me to look at my students as individuals. This reminder has forced me to be accountable for my teaching strategies and style. I felt that I had to find ways within my teacher self to accommodate individual student learning differences.

The research process of using knowledgeable observers in my classroom, has opened my eyes to my personal habits and assumptions. Because I was the one who had shaped the activities in the drama classroom, observations and questions were formed about my actions, by the observers. Through the interview process, I became verbally accountable for my teaching decisions, beliefs and activities. As a drama educator, I never had the opportunity or need to explain my actions and teaching strategies in depth. This part of the research opened an avenue for my own self-study and criticism. I had to be honest with myself. As an educator interested in improving myself, I could not help but be affected by the responses and questions of the observers. Indeed, I did act upon some observer suggestions and reflections. After all, these observers were connoisseurs of teaching, and their insights proved fruitful to my research and to my teaching.

Educationally, I have been able to synthesize my philosophies and examine them. I have learned about my academic pleasure in recognizing, organizing, integrating, synthesizing and examining theories. I have enjoyed the writing process. I have been amazed by the shape and growth of this study, from process to product. I have confirmed, for myself, that drama is an interactive process and because of this confirmation, I feel drama research should involve interactive research methods.

Personally, through examining my own learning styles and teaching styles, I have come to a greater understanding of myself and my interaction with others. This has led to my personal growth, which is in the process of continuing and expanding. I now respect and understand the styles of my students and my professional peers. I have learned how to refine my right-brained, abstract-random styles, in order to relate to others in an organized and concrete fashion. I have gained confidence in sharing my teaching with others.

Another impact resulting from this study is the sharing of my research work with others. Through the accountable process of using knowledgeable observers in my research, I have involved many people. These observers saw what it was like in my drama classroom, and worked in an area and style of research that was new to many of them. Their educational and professional histories mixed with mine. This was the stepping stone to sharing my work with other teachers in my school. I had used two peer teachers as knowledgeable observers in my study. I had also involved my administration. These people gained new insights into drama and the students they observed. At times, this information was shared in the staff room. The idea of research in drama, appeared to enhance an inquisitive respect for the drama program. The attitude of teachers saying, "Oh, it's just drama!" slowly became, "Well, what do you do in drama?"

I had also used consultants from my school board as knowledgeable observers. This brought the consultants into my drama classroom. The learning style observer instruments and corresponding interviews allowed the consultants an opportunity to examine drama and learning styles from their areas of expertise. Because of their interest in my research, my school board occasionally, asked me to work in the role of drama consultant. I was asked to work on special projects, confer with drama teachers needing help, and in-service the new drama curriculum. Further, I gave a session on Learning Styles and Dramatic Action at our Teacher's Convention. This session opened avenues of communication to teachers within the system, who were interested in learning styles and the integration of dramatic teaching techniques in other subject areas. Finally, the most recent impact of this study, has been the presentation of a paper, Learning Styles and Drama: A Dialogue, (Fitzgerald and Robertson) for the International Drama Research Symposium, OISIE of Spring, 1989.

I did not foresee the possible impact of this study. I began the study with a desire to understand how learning occurred in my drama classroom. As the research began, the consequences of the impact of the study began to unfold. I have been fortunate to enjoy and look forward to the avenues this study has and will direct me.

QUESTIONS FOR FURTHER RESEARCH

As the themes emerged and conclusions were reached, questions arose. These questions are of interest to educators and could be examined in a drama classroom. For example, do students recognize when they have uncovered their natural learning style? The literature confirms that students can recognize and identify their learning styles; it also states that matching student learning styles with teaching styles will increase learning. However, do we know if students really know themselves? Areas for further research in learning style and drama need to identify and confirm how students know, when they fill out a self report assessment, if they are describing:

- how they actually learn,
- how they would like to learn,
- conditions that currently exist in the drama classroom,
- conditions that they believe to be acceptable in the drama classroom.

Are teachers familiar enough with their own learning styles and teaching style, according to the same learning style framework that they pass on to their students? Are learning style concepts being passed down by administrators and fully implemented by the teachers, when their is no need? Is it understood that learning styles are for the students who are having problems and need a way in to the particular learning situation? Have educators seriously, rather than superficially, understood the nature and consequences of implementing learning styles in the drama classroom? How are students affected by knowing their learning styles? Using the learning style theories, do we understand what learning takes place through dramatic action? Which learning style theories benefit drama in education?

Other questions for further research stem from the information found in Chapter 5, the class profiles of the other two grade eight drama classes. Given the similar circumstances of the same drama studio environment, the same teacher, and the same dramatic content, what contributes to the uniqueness of each class's learning style? What effects do peer interaction have on learning style in the drama classroom? How does peer interaction change the learning styles of students engaged in dramatic activity? Do students recognize the effects of peer interaction within drama? What instrument could be created to measure the effects of peer interaction in learning styles and in dramatic activity?

Lack of motivation appeared in the three grade eight drama classes. Although the students would identify themselves as non-motivated, knowledgeable observers would identify their actions as motivated, persistent and responsible within their dramatic activities. Why do students see themselves in this non-motivated style? At what level, does the adolescent understand self-identification? What pressures of adolescence contribute to this factor? Does this style indicate low self-esteem? If so, does drama and its enhancement of the natural maturational process encourage motivation? What would be the differences in motivation if the students in this study had not been enrolled in drama?

Finally, there was a significant difference in the class profiles administered early and late in this research. Why does this information contradict the Dunn and Dunn statement that learning styles basically remain stable over a period of time (one year)? What happened to the students in this study, so that their learning styles changed? Indeed, what is a significant change in learning style? What factors and for what reasons, does adolescence effect learning style? What are the criteria that signify changes in adolescent learning styles? How can these criteria be measured?

FINAL REFLECTIONS

This study began as an exploration into understanding whether developmental drama allowed students to uncover their natural learning styles. Through the research I have learned about the early adolescent student and their complexities. I have come to examine in depth, the nature of the subject content, drama, which I teach. With this new knowledge I have defined and refined my own status in drama education. I have learned about myself as a teacher and with this knowledge I have grown professionally. I have learned how to incorporate criticism, positive and negative, into my educational practices and philosophies, and work with it. I now also have the motivation to encourage others in educational research pursuits.

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APPENDIX A
DEVELOPMENTAL DRAMA AND LEARNING STYLES

JOURNAL/LOG BOOK Class ____________

DATE: ________________
DAY: ________________
TIME: ________________

OBSERVER'S NAME ____________________

WHAT HAPPENED:

Student Activities Teacher Activities Stimuli

Circle/Introduction

Warm Up

Activities

Closure

Environmental
- Sound
- Light
- Temperature
- Design

Emotional
- Motivation
- Persistence
- Responsibility
- Structure

Sociological
- Self
- Pairs
- Team
- Adult
- Varied

Physical
- Perceptual
- Intake
- Time
- Mobility

Psychological
- Global
- Analytical
- Hemisphericity
- Impulsive
- Reflective

CONCEPTS AND BUILDING BLOCKS ______________________________

APPENDIX B

OBSERVATION INVENTORY OF LEARNING STYLES IN THE DRAMA CLASSROOM

for

Mary Frances Fitzgerald

OBSERVER'S NAME______________________________

LESSON THEME______________________________

ACTIVITIES OBSERVED______________________________

____

____

____

DATE______________________________

CLASS __________ 8-1

__________ 8-2

__________ 8-3

OBSERVATION INVENTORY OF LEARNING STYLES IN THE DRAMA CLASSROOM

INTRODUCTION

Throughout this research project, a number of observers will be invited to help me, by providing an objective evaluation of the learning processes occurring within the study population. Because each observer will bring his or her unique and valued knowledge to the study, I have provided the following inventory, which will focus the comments on learning styles and developmental drama. Thank you for your insights. We will discuss them in the follow-up session.

LEARNING STYLE MODEL

(Dunn and Dunn)

The Dunn's Learning Style Model delineates five stimuli which influence a student's natural learning style: environmental, emotional, sociological, physical and psychological. For each stimulus there are various elements which affect that stimulus.

ENVIRONMENTAL

Did you notice any of the following elements as contributing factors to the drama classroom? Any comments?

sound

light

temperature

design

EMOTIONAL

Did you notice anything special about:

student motivation

student persistence

student responsibility

or classroom structure?

SOCIOLOGICAL

Did the students have the opportunity to work:
by themselves________________________
in pairs____________________________
with peers__________________________
as a team___________________________
or in varied circumstances_____________ ?

Did any of these grouping influence the students' work?

PHYSICAL

People perceive information through three basic modes:
aural (sound and words)
visual (the printed work and visual media)
tactile/kinesthetic (touch, object manipulation and movement).

Did any of these modes affect today's lesson? Any comments?

Food intake, time pressures and mobility can effect students learning. Did any of these factors influence the lesson?

PSYCHOLOGICAL

We now know the barin processes eith simultaneously or successively, right brained or left brained, globally or analytically. That is, some students need to see the whole picture while other students need to understand the sequential parts of the process. Did this affect today's drama class?

OTHER COMMENTS?

BUTLER'S STYLE DIFFERENTIATED INSTRUCTION

Please check off any of the factors which you feel strongly influenced today's lesson. Comments are welcome.

Did the STRUCTURE of the lesson have:
_____ a standard and structured format with exact directions,
_____ a general, predictable structure,
_____ accommodation for personal ideas, reactions,
_____ options for independent and self-designed work?

Did the INSTRUCTIONAL APPROACH address the students' individual needs for:
_____ organization, precision and practicality,
_____ logic, reason, and intellect,
_____ relationship, orientation and emotional understanding,
_____ originality, divergency and creativity?

Did the INSTRUCTIONAL TECHNIQUES allow for:
_____ practical, hands-on experience,
_____ time to plan, organize, and think analytically.
_____ personalized experiences,
_____ choices among many possibilities?

Can students follow PROCEDURES that let them:
_____ have a direct, structured experience that leads to a provable, real outcome,
_____ use analytical skills and have theoretical outcomes.
_____ use imagination and have flexible outcomes,
_____ use creativity and inventiveness to produce original outcomes?

Do students appear to be working in a manner which is:
_____ strange and awkward for themselves,
_____ somewhat of a challenge,
_____ comfortable,
_____ natural?

ANY COMMENTS?

APPENDIX C

LEARNING STYLE INVENTORY ANSWER SHEETS GRADES 5-12

Dunn, Dunn and Price

Read each statement and decide to what extent you would agree or disagree with that statement, if you had something new or difficult to learn. Mark (SD), if you strongly disagree, or (D), disagree, or (U), uncertain, or (A) agree, or (SA) strongly agree, as the response that best describes how you feel most of the time. Some of the questions are repeated to help make the inventory results more reliable. Answer the repeated question the same as you did the first time you read the question. Give your immediate or first reaction to each question. Please answer all questions with a no. 2 pencil.

1. I study best when it is quiet. SD D U A SA
2. I like to make my parents happy by getting good grades. SD D U A SA
3. I like studying with lots of lights. SD D U A SA
4. I like to be told exactly what to do. SD D U A SA
5. I concentrate best when I feel warm. SD D U A SA
6. I study best at a table or desk. SD D U A SA
7. When I study I like to sit on a soft chair or couch. SD D U A SA
8. I like to study with one or two friends. SD D U A SA
9. I like to do well in school. SD D U A SA
10. I usually feel more comfortable in warm weather that I do in cool weather. SD D U A SA
11. Things outside of school are more important to me than my school work. SD D U A SA
12. I am able to study best in the morning. SD D U A SA
13. I often have trouble finishing things I ought to do. SD D U A SA
14. I have to be reminded often to do something. SD D U A SA
15. I like making my teacher proud of me. SD D U A SA
16. I study best when the lights are dim. SD D U A SA
17. When I really have a lot of studying to do I like to work alone. SD D U A SA
18. I do not eat, drink, or chew while studying. SD D U A SA
19. I like to sit in a straight chair when I study. SD D U A SA
20. Sometimes I like to study alone and sometimes with friends. SD D U A SA
21. I remember instructions better when I read, rather than when someone tells me them. SD D U A SA
22. I think better when I eat while I study. SD D U A SA
23. I like an outline for how I should do my school work. SD D U A SA
24. I often nibble something as I study. SD D U A SA
25. It's hard for me to sit in one place for a long time. SD D U A SA

26. I remember things best when I study them early in the morning. SD D U A SA
27. I like to learn by talking with people. SD D U A SA
28. I hardly ever finish all my work. SD D U A SA
29. I usually start my homework in the afternoon. SD D U A SA
30. I really don't care much for school. SD D U A SA
31. I like to feel what I learn inside. SD D U A SA
32. Sound usually keeps me from concentrating. SD D U A SA
33. I like to learn something new by talking rather than reading about it. SD D U A SA
34. At home I usually study under a shaded lamp while the rest of the room is dim. SD D U A SA
35. I really like to do experiments. SD D U A SA
36. I usually feel more comfortable in cool weather than I do in warm weather. SD D U A SA
37. When I do well in school, grown-ups in my family are proud of me. SD D U A SA
38. It is hard for me to do my school work. SD D U A SA
39. I concentrate best when I feel cool. SD D U A SA
40. I like to relax on soft rugs and carpets, a couch, a soft chair, or a bed when I study. SD D U A SA
41. I think my teacher feels good when I do well in school. SD D U A SA
42. I remember to do what I am told. SD D U A SA
43. I like like to learn better by reading than by talking. SD D U A SA
44. I can block out sound when I work. SD D U A SA
45. I am happy when I get good grades. SD D U A SA
46. I like to learn most by building, making or doing things. SD D U A SA
47. I usually finish my homework. SD D U A SA
48. If I could go to school anytime during the day, I would choose to go in the early morning. SD D U A SA
49. I have to be reminded often to do something. SD D U A SA
50. It is harder for me to get things done in the late morning compared to the afternoon. SD D U A SA
51. It is easy for me to remember what I learn when I feel it inside of me. SD D U A SA
52. I like to be told exactly what to do. SD D U A SA
53. My parents are interested in how I do at school. SD D U A SA
54. I like my teacher to check my school work. SD D U A SA
55. I enjoy learning by going places. SD D U A SA
56. When I really have a lot of studying to do, I like to work alone. SD D U A SA
57. Sometimes I like to work alone, with a friend or with an adult. SD D U A SA
58. I can sit in one place for a long. time. SD D U A SA
59. I can not get interested in my school work. SD D U A SA
60. I really like to draw, color, or trace things. SD D U A SA

61. I remember the things I hear better than when I read about them. SD D U A SA
62. I remember things best when I study them in school. SD D U A SA
63. No one really cares if I do well in school. SD D U A SA
64. I really like to shape things with my hands. SD D U A SA
65. When I study I put on many lights. SD D U A SA
66. I like to eat, drink or chew while I study. SD D U A SA
67. When I really do a lot of studying, I like to work with my friends. SD D U A SA
68. When it's warm outside I like to go out. SD D U A SA
69. I remember things best when I study them early in the morning. SD D U A SA
70. I can sit in one place for a long time. SD D U A SA
71. I often forget to do or finish my homework. SD D U A SA
72. I like to make things as I learn. SD D U A SA
73. I can think best in the evening. SD D U A SA
74. I like specific directions before I begin a task. SD D U A SA
75. I am most awake around 10:00 in the morning. SD D U A SA
76. The things I like doing best in school are the things I do with my friends. SD D U A SA
77. I like adults nearby when I study. SD D U A SA
78. My family wants me to get good grades. SD D U A SA
79. Late morning is the best time for me to study. SD D U A SA
80. I like to learn most by building, making or doing things. SD D U A SA
81. I often want to get something new, rather than finish what I have started. SD D U A SA
82. I keep forgetting to do things I have been told to do.
83. I like to be able to move and experience the motions and the feel of what I study. SD D U A SA
84. When I really have a lot of studying to do I like to work with two friends. SD D U A SA
85. I like to learn through real experiences. SD D U A SA
86. If I could go to school anytime during the ay, I would choose to go in the early morning. SD D U A SA
87. I like to have an adult nearby when I do my school work. SD D U A SA
88. I can ignore most sound when I study. SD D U A SA
89. If I have something new to learn, I would rather read than talk with someone to learn about it. SD D U A SA
90. I study best around 10:00 in the morning. SD D U A SA
91. I like school most of the time. SD D U A SA
92. I remember things best when people tell them to me rather than when read about them. SD D U A SA
93. I often eat something while I study. SD D U A SA
94. I enjoy being with friends when I study. SD D U A SA
95. It's hard for me to sit in one place for a long time. SD D U A SA
96. I remember things best when I study them before evening. SD D U A SA

97. I think my teacher wants me to get good grades. SD D U A SA
98. I like to do things with adults. SD D U A SA
99. I really like to build things. SD D U A SA
100. I can study best in the afternoon. SD D U A SA
101. Sound bothers me when I study. SD D U A SA
102. When I really have a lot of studying to do I like to work with my friends. SD D U A SA
103. When I can, I do my homework in the afternoon. SD D U A SA
104. I love to learn new things. SD D U A SA

APPENDIX D

A LEARNING STYLE COMMUNICATOR

A TEACHER OBSERVATION INSTRUMENT FOR THE QUALITATIVE ASSESSMENT OF LEARNING STYLE

KATHLEEN A. BUTLER, PH.D.

Directions

Check the characteristic in each style that strongly apply to each student. Tally the total number of characteristics observed for the student in each style. The greater the number of characteristics in any one style, the more likely the student has strong style preferences in that style. A student with strong style preferences would benefit from frequent style match to his/her preferences.

THE CONCRETE RANDOM STYLE OF STUDENTS

INQUISITIVE, CURIOUS, INVESTIGATIVE, INTUITIVE

___Find acceptable but out of the ordinary answers.
___Seem to operate on insight and intuition rather than on systematic deductive thought processes.
___Jump to conclusions, often correctly.
___Work like investigators and use trial-and-error approaches to learning.
___Are often on the prowl for something interesting to do; are sometimes described by adults as "looking for trouble."
___May be risk takers.
___Extend present ideas into more questions.

DARING, DIFFERENT, UNUSUAL

___Challenge the teacher to try different approaches and unusual ideas.
___Are fascinated by the non-ordinary and unusual, which others may fear.
___Respond well to options, want to do things their way.
___Have the attitude, "don't fence me in;" will not be controlled.
___May sabotage authority, or create a scene, if tight control is attempted.
___Are willing to be different from others.
___Enjoy defying those who are determined to control them.
___May ignore social conventions in order to find out about other people and their ideas.
___May test the environment and others to see what will happen.

CREATIVE, DIVERGENT, ORIGINAL, INVENTIVE

___Have many unusual and varied ideas about the reasons and causes for ideas.
___Are divergent thinkers, can have many answers to one question.
___Show creativity; may be misinterpreted.
___Have much information, which is easily recalled and used.
___Organize "junque" collections in their own fashion.
___May have many types of interests and projects.
___Think of things that could be; like to design new and original things.
___Cannot explain mental leaps. Say, "I don't know how I know. I just know."
___Do not respond well to structured assignments. Will put off tasks until the last minute, daring themselves to finish.

PROBLEM SOLVER, CHALLENGER, EXPERIMENTER, INDEPENDENT

___Ask questions such as, "What if..."
___Are process oriented in think, getting the answer is more important than the answer itself.
___Like brain-teaser problems, physical problems.

___ Do not need many details to solve a problem.
___ Learn well through discovery methods, games, simulations, and role play.
___ Are not overly concerned if tasks are left unfinished.
___ Are experimental; operate on their own time standards.

CHANGE ORIENTED

___ Take an ordinary idea and restructure it. For example, take the approach, "Look what I can do if..."
___ Are driven to invent new ideas, new responses, and new products.
___ Thrive on change, create change, and use change to improve their lives.

THE ABSTRACT SEQUENTIAL STYLE OF STUDENTS

RATIONAL, LOGICAL, CONCEPTUAL, THEORETICAL

___Have the ability to think rationally and logically.
___Use reason as an internal guide.
___Thrive under teachers who are experts in the students' areas of interest.
___May have an ivory-tower image, even at an early age.
___Need quiet to work and think.
___Seem detached from emotions and emotional reaction. Are privately emotional.
___Separate emotions from learning.
___May be accused of "thinking too much."
___Like to talk about ideas, to play with ideas, and to debate ideas.

ANALYTICAL, EVALUATIVE, ARGUMENTATIVE

___May appear smartest in book knowledge.
___Read avidly for interest and information.
___Learn well through lecture.
___Fit the phrase "nose in always in a book."
___May miss the world around them because they are lost in thought.
___Build on previous learning and stored bank of knowledge.
___Analyze and evaluate knowledge, self, and others.

INTELLECT, THINKERS

___Hold very high expectations of themselves.
___Expect and treat the teacher as the expert.
___Will challenge teachers' abilities and ideas if they are not perceived as experts.
___Follow directions if the directions are not overly picky.
___Appreciate intellect and the role of logic.
___Appear to be enthusiastic and eager students, and like learning for its own sake.
___State that reading is a favorite hobby.

SCHOLARLY, STRUCTURED IN THOUGHT

___Excel in standardized tests.
___Are good lesson learners.
___Do not learn well through multimedia.
___Gravitate to book reports and research papers.
___Read quickly, easily, and thoroughly, do not skim.
___Have and use a well-developed, extensive vocabulary.
___Have difficulty with hands-on creations.

___May think they are clumsy with projects or may consider hands-on projects beneath them.
___Use words with precision and expertise.

LITTLE PROFESSORS, ACADEMIC, RESISTANT TO CHANGE

___May wrap themselves in the world of ideas and thoughts.
___Require others to use their logic system.
___May look down on others as less intelligent.
___May ignore random learners as if they do not understand them or if the random learners operate outside the traditional AS logic structure.

THE CONCRETE SEQUENTIAL STYLE OF STUDENTS

ORDERLY, ORGANIZED, TO-THE-POINT, THOROUGH, PRECISE

___Prefer desks, books, personal things to be in order and in their place.
___Claim a "place" in class, such as "I always sit here."
___Know just how their possessions should be arranged, lent out, and cared for.
___Do not tolerate rearrangement easily.
___Collect, organize, arrange, classify, list, categorize, and order their data , information, ideas, people, time, and items.
___Have consistent habits, routines, and tried-and-true patterns.
___Show a preference of order with comments like "We've always done it this way."

DIRECT, STRUCTURED, PREDICTABLE, PERFECTION ORIENTED

___Pay attention to detail and specific information.
___Want to complete assignments appropriately and correctly.
___Ask for exact directions, try to follow directions, appear to obey orders.
___Get to work easily with proper directions, and view work as a job assignment.
___Want perfection and may be overly concerned with minute detail.

INDUSTRIOUS, FACTUAL, DETAILED, TASK ORIENTED, EXACT

___Are fascinated with how things work, and with mechanical and technological things.
___Do well on objective tests that are right-answer oriented.
___Are good with exact, structured work, such as map making.
___Work with thoroughness, and time-one-tasks.
___Have the attitude that "busy hands are happy hands."
___Can usually find something to keep busy.
___May have a natural ability to memorize, or a photographic memory.
___Are bored by long lecture, like to be physically involved and active.
___Operate well under contract learning.
___Learn quickly through demonstration, and guided practice.
___Like to work things out step-by-step, and finish one task at a time.
___Avoid group work; try to sequence member of groups-"let's get to work."
___Give to-the-point answers found in the texts and in teacher's instructions.
___Like the teacher to check out that the student's work is correct.

CONCRETE, PHYSICALLY BASED, PRACTICAL

___Have hobbies that require use of physical sense and produce a physical product, such as a model plane, a stained glass design, or rebuilt motorcycle.
___Like to make things, and may reluctantly give up hands-on activities.

___ Do not read meaning into verbal messages, or body language; take things as they hear and see them, as they are.
___ Show creativity by producing physical products.
___ Do not waste time on "talk." Are get to-the-point learners.

STEADFAST, RELIABLE, SURE OF THEMSELVES

___ Cannot be convinced to go against their norm.
___ Can be counted on to "finish the job."
___ Reject people who have betrayed their confidence or trust.
___ May be very critical of students who do not use CS style.
___ Do not adjust easily to change.
___ Respond best to change when they have been prepared for it well in advance.

THE ABSTRACT RANDOM STYLE OF STUDENTS

EMOTIONAL, SENSITIVE, SUBJECTIVE

___Are ruled by emotions and confess their feeling easily.
___Cry easily over sensitive issues and sentimental experiences.
___Can put on a long face easily because of a teacher's reprimand.
___Like to have a friendly relationship with the teacher.
___May withdraw from and dislike teachers who do not respond to them.
___Respond easily to personalities who are oriented to them.
___Take the attitude "Love me, then I'll learn from you."
___Are easily hurt by sarcastic remarks or unkind words.
___May be secretive persons.
___May need quiet time during the day to recharge.
___Tune in to the mood of their surroundings.
___Include the past in their judgment of today i.e., "Last year we.."
___Thrive under personalized attention.
___Us hand, body, and facial expressions to communicate directly.
___May take punishment with resentment if not allowed to explain personally.

SOCIABLE, UNDERSTANDING, EMPATHETIC

___Can usually accept and understand the situation when things go wrong.
___Have and make fiends very easily.
___May be painfully shy if the withdrawn type.
___Help-others-out friendship rather than to get-the-job done friendship.
___Listen to the feelings of others and are good empathizers.
___Learn from others in a friendly, cooperative manner.
___Look for a "You're special" attitude from teachers and peers.

IMAGINATIVE, COLORFUL

___Use fantasy, make-believe, and imagination as a ready resource.
___Regard fantasy and imagination as legitimate ways to experience learning.
___Use imagination to create, and may have an "overactive" imagination.
___Decorate and color their books, papers, book-covers with art and messages.

MEDIA ORIENTED, THEMATIC, INTERPRETATIVE

___Explain knowledge through stories, metaphors, and personal experiences.
___Appreciate poetry, art, music, and literature.
___Prefer interpretations and explanations rather than exact answers.
___Contribute to groups from their emotions and feelings.
___Learn effectively from movies, films, and television.
___Like to learn about people, personal interests, and human nature.

___Do not like extremely structured assignments; are bored by worksheets, drills, and busywork, and may have difficulty with objective tests.
___Are not always aware of directions.
___May not know how to translate imaginative ideas into physical items.
___May have great difficulty separating things into clear-cut categories.

FLEXIBLE, ADAPTABLE

___Can adjust easily to changes in routine.
___Can tell by feeling others' "vibrations" when things are going wrong.
___Resist control by others, but give in easily to friends and trusted others.
___Work within broad time limits. Need training for timed tests.

APPENDIX E

YOUR STYLE OF LEARNING AND THINKING FORM C-C

(Copyright, Paul Torrance, 1980)

Choose only one answer for each question, A, B, or C and put an X in the appropriate column.

	A.	B.	C.
1.	___	___	___
2.	___	___	___
3.	___	___	___
4.	___	___	___
5.	___	___	___
6.	___	___	___
7.	___	___	___
8.	___	___	___
9.	___	___	___
10.	___	___	___
11.	___	___	___
12.	___	___	___
13.	___	___	___
14.	___	___	___
15.	___	___	___
16.	___	___	___
17.	___	___	___
18.	___	___	___
19.	___	___	___
20.	___	___	___
21.	___	___	___
22.	___	___	___
23.	___	___	___
24.	___	___	___
25.	___	___	___
26.	___	___	___
27.	___	___	___
28.	___	___	___
29.	___	___	___
30.	___	___	___
31.	___	___	___
32.	___	___	___
33.	___	___	___
34.	___	___	___
35.	___	___	___
36.	___	___	___
37.	___	___	___
38.	___	___	___
39.	___	___	___
40.	___	___	___
41.	___	___	___
42.	___	___	___
43.	___	___	___
44.	___	___	___
45.	___	___	___
46.	___	___	___
47.	___	___	___
48.	___	___	___
49.	___	___	___
50.	___	___	___

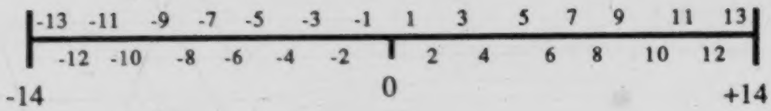
SCORING:

1. Compute total number of A's______, total number of B's____, total number of C's_______.
2. Compute total number of B's MINUS total number of A's. (It can be a plus or minus number.)
3. If your number of C's if 15 or higher you must now divide your B minus A score by three.________

OR If your number of C's is from 9 to 14, you must divide your B minus A score by two.________

OR If your number of C's is less than 9, do not divide at all. (In this case, you B minus A score is your final score.)

4. Plot your score below.



-14 through -7	-6 through -1	0	+1 through +6	+7 through +14
Left Brain	Whole Brain favoring left	Whole Brain	Whole Brain favoring right	Right Brain

Put an X on the answer sheet in the appropriate column, A, B, C for the description that is most like you. Mark only one X for each question.

1. I remember best...
A. names
B. Faces
C. both names and faces.

2. I prefer to have things explained to me...
A. With words
B. by showing them to me
C. both ways.

3. I prefer classes...
A. with one assignment at a time
B. where I work on many things at once
C. both ways.

4. I prefer....
A. multiple choice tests
B. essay tests
C. both kinds of tests

5. I am..
A. not good at body language, I prefer to listen to what people say
B. good at body language
C. sometimes good, and other times not good.

6. I am...
A. not good at thinking of funny things to say and do
B. good at thinking of funny things to say and do
C. sometimes good.

7. I prefer classes...
A. where I listen to "experts"
B. in which I move around and try things
C. where I listen and try things.

8. I decide what I think about things...
A. by looking at the facts
B. based on my experience
C. both ways.

9. I tend to solve problems...
A. with a serious, business like approach
B. with a playful approach
C. with both approaches.

10. I like...
A. to use proper materials to get jobs done
B. to use whatever is available to get jobs done.
C. a little of both.

11. I like my classes or work to be..
A. planned so I know exactly what to do
B. open with opportunities for changes
C. both planned and and open to changes.

12. I am...
A. never inventive
B. very inventive
C. occasionally inventive.

13. I prefer classes when I am expected...
A. to learn about things I can use in
B. to learn things I can use right away
C. both kinds of classes.

14. I....
A. would rather not guess or play hunches
B. like to play hunches and guess
C. sometimes make guesses and play hunches.

15. I like to express feelings and ideas...
A. in plain language
B. in poetry, song, and dance
C. both ways.

16. I get insights from poetry, symbols, etc.....
A. rarely
B. usually
C. sometimes.

17. I prefer...
A. solving one problem at a time
B. solving more than one problem at a time.
C. both equally.

18. I respond more to people when...
A. they appeal to my logical side, my intellect
B. when they appeal to my emotional side, my feelings
C. equally respond to both kinds of appeal.

19. I prefer to learn...
A. the well established parts of a subject
B. about the unclear parts, the hidden possibilities
C. both ways.

20. I prefer...
A. analytic reading taking ideas apart and thinking about separately
B. creative reading putting a lot of ideas together
C. both kinds of reading.

21. I prefer...
A. to use logic in solving problems
B. to use "gut feelings" in solving problems
C. both equally.

22. I prefer...
A. to analyze problems by reading and listening to experts
B. to see and imagine things when I solve problems
C. to do both.

23. I'm very good at..
A. explaining with words
B. explaining things with movement and actions
C. both.

24. I learn best from teachers who...
A. explain with words
B. explain with movement and actions
C. have no preference.

25. When I remember or think about things, I do so best with...
A. words
B. pictures and images
C. both equally well.

26. I prefer to ...
A. examine something that is finished and complete
B. something that is unfinished
C. do both.

27. I enjoy...
a. talking and writing
B.drawing and manipulating
C. both equally.

28. I am...
A. easily lost in finding directions
B. good at finding directions
C. not bad in finding directions, but not good either.

29. I am ..
A. primarily intellectual
B. primarilv intuitive
C. equally intellectual and intuitive.

30. I prefer to learn...
A. details and specific facts
B. from a general overview, to look at the whole picture
C. both ways equally.

31. I read...
A. for specific details and facts
B. for main ideas
C. for both equally.

32. I learn and remember...
A. only those things specifically studied
B. details and facts in the environment, not specifically studied
C. have noticed no difference in these areas.

33. I like to read...
A. realistic stories
B. fantasy stories
C no preference

34. I feel it is more fun to...
A. plan realistically
B. dream
C. both equally fun.

35. I....
A. prefer total quiet while reading or studying
B. prefer music while reading or studying
C. listen to music only when reading for enjoyment, not when studying.

36. I would like to write...
A. non-fiction books
B. fiction books
C.no preference

37. If seeking mental health counselling, I would prefer...
A. the confidentiality of individual counselling
B. group counselling sharing of feelings with others
C. no preference for group over individual counselling.

38. I enjoy...
A. copying and filling in details
B. drawing my own images and ideas
C. both equally.

39. It is more exciting..
A. to improve something
B. to invent something
C. both are exciting.

40. I prefer to learn...
A. by examining
B. by exploring
C. both ways equally.

41. I prefer...
A. algebra
B. geometry
C. both equally.

42. I am skilled in ...
A. sequencing ideas
B. showing relationships among ideas
C. both equally.

43. I prefer...
A. dogs
B. cats
C. both equally.

44. I....
A. use time to organize myself and my personal activities
B. have difficulty in pacing my personal activities
C. pace personal activity to time easily.

45. I have...
A. almost no mood changes
B. frequent mood changes
C. few mood changes.

46. I am...
A. almost never absent-minded
B. frequently somewhat absent-minded
C. occasionally absent-minded.

47. I am strong...
A. in recalling verbal materials, (names, dates)
B. in recalling spatial material
C. equally strong in both.

48. I am skilled in...
A. the statistical, scientific prediction of outcomes
B. the intuitive prediction of outcomes
C. equally strong in both.

49. I prefer...
A. outlining over summarizing
B. summarizing over outlining
C. equally skilled in both.

50. I prefer...
A. verbal instructions
B. demonstrations
C. no real preference.

APPENDIX F

LEARNING STYLE INVENTORY

LEARNING STYLE SUMMARY FOR STUDENTS HAVING STD. SCORE **EQUAL TO OR GREATER THAN 60**

PRICE SYSTEMS, INC., BOX 1818, LAWRENCE, S. 66044 (03-28-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO: 817

NAME	CONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
KARL	88								•										•	•	•		
JODEL	63						•											•					
DANNY	88				•		•											•	•				
MICKY	100																		•			•	
TANICE	100						•	•														•	
BRYAN	50								•														
CINDY	100			•					•	•			•							•			
SHARON	88																			•			
JANIE	100	•													•	•	•				•	•	
SHAUN	100			•						•	•	•					•				•	•	
ROY	88	•														•							
DALE	100																						
CHUCK	100	•		•				•									•						
GLORIA	63								•	•	•	•	•		•	•			•				
SIMON	88		•	•						•													
JOY	88	•		•						•				•	•				•	•		•	
NINA	100																						
VINCENT	75									•					•		•						
RHONDA	75			•						•						•			•				
WILLIAM	100				•	•				•	•	•		•		•		•	•		•	•	
EVELYN	63				•																		
CHRISTEN	100			•		•		•			•				•	•				•		•	
JULIA	75			•					•				•			•					•	•	

LEARNING STYLE INVENTORY

LEARNING STYLE SUMMARY FOR STUDENTS HAVING STD. SCORE **EQUAL TO OR LESS THAN 40**

PRICE SYSTEMS, INC., BOX 1818, LAWRENCE, KS. 66044 (03-28-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO. 817

NAME	CONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
KARL	88						•	•															
JODEL	63								•				•	•							•	•	
DANNY	88														•						•		
MICKY	100											•		•	•								
TANICE	100									•		•		•									
BRYAN	50			•		•						•						•					•
CINDY	100				•									•				•					
SHARON	88	•			•					•	•	•							•				
JANIE	100		•					•			•							•	•				
SHAUN	100						•	•															
ROY	88							•			•												
DALE	100	•					•				•				•			•					•
CHUCK	100	•																					
GLORIA	63						•																
SIMON	88				•	•								•					•	•	•		•
JODEL	88																	•			•		
NINA	100					•										•							•
VINCENT	75			•			•												•				
RHONDA	75	•					•																•
WILLIAM	100							•															
EVELYN	63	•	•	•				•		•					•	•	•			•	•	•	
CHRISTEN	100		•		•													•	•		•		
JULIA	75		•			•				•	•			•				•	•				

APPENDIX G

LEARNING STYLE INVENTORY

LEARNING STYLE SUMMARY FOR STUDENT HAVING STD. SCORE EQUAL TO OR GREATER THAN 60

PRICE SYSTEMS, INC., BOX 1818, LAWRENCE, KS. 66044 06-27-1988

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO. 48

NAME	CONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
KARL	75													●					●	●			
JODEL	63								●														
DANNY	100						●	●	●					●				●	●			●	●
TANICE	100																	●	●				
CINDY	75																			●	●		
SHARON	88																			●	●		
BRYAN	63														●								
JANIE	63										●	●						●					
ROY	75	●												●									
CHUCK	75													●									
GLORIA	88								●	●	●	●	●				●					●	
SIMON	63		●	●																			
JODEL	88			●						●		●			●	●	●			●		●	
NINA	88																	●	●				
RHONDA	88									●							●			●			
WILLIAM	38								●		●		●	●		●		●	●	●			
CHRISTEN	100	●		●		●	●	●						●	●	●	●			●		●	●

LEARNING STYLE INVENTORY

LEARNING STYLE SUMMARY FOR STUDENTS HAVING STD. SCORE **EQUAL TO OR LESS THAN 40**

PRICE SYSTEMS, INC., BOX 1818, LAWRENCE, KS. 66044 (06-27-1988)

GROUP IDENTIFICATION: MORNINGSIDE JR. HIGH
GROUP NO: 48

NAME	CONS.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
KARL	75									•													
JODEL	63							•												•			•
DANNY	100												•		•	•				•	•		
MICKY	100					•	•	•												•			•
TANICE	100	•					•			•	•	•											
CINDY	75	•			•						•							•	•				
SHARON	88	•			•			•										•	•				
BRYAN	63	•																					
JANIE	63		•			•	•						•										•
SHAUN	100					•	•	•					•			•						•	
ROY	75												•								•	•	•
DALE	88						•			•		•			•	•							
CHUCK	75					•	•																•
GLORIA	88				•													•					
SIMON	63				•	•		•	•				•	•			•			•	•		•
JODEL	88								•														
NINA	88					•																•	
VINCENT	63					•																•	•
RHONDA	88						•	•	•		•			•								•	•
WILLIAM	38						•																•
EVELYN	88	•		•		•	•		•	•	•					•	•				•	•	•
CHRISTEN	100		•		•					•			•								•		
JULIA	38	•	•	•		•	•			•	•	•	•		•	•	•		•	•	•		•